

1 UNITED STATES DISTRICT COURT
 2 FOR THE NORTHERN DISTRICT OF OHIO
 3 EASTERN DIVISION
 4 *****
 5 IN RE: NATIONAL
 6 PRESCRIPTION OPIATE MDL No. 2804
 7 LITIGATION
 8 Case No.
 9 This document relates 17-MD-2804
 10 to:
 11 The County of Cuyahoga, Hon. Dan A. Polster
 12 et al. v. Purdue
 13 Pharma L.P., et al.
 14 Case No. 17-OP-45004
 15 (N.D. Ohio)
 16 *****
 17 HIGHLY CONFIDENTIAL - SUBJECT TO FURTHER
 18 CONFIDENTIALITY REVIEW
 19
 20 Videotaped Deposition of JEFFREY
 21 B. LIEBMAN, Ph.D. held at the offices of Ropes
 22 & Gray LLP, 800 Boylston Street, Boston,
 23 Massachusetts, commencing at 9:03, on the 3rd
 24 of May, 2019, before Maureen O'Connor
 Pollard, Registered Diplomat Reporter,
 Realtime Systems Administrator, Certified
 Shorthand Reporter.

GOLKOW LITIGATION SERVICES
 877.370.3377 ph | 917.591.5672 fax
 deps@golkow.com

1 APPEARANCES:
 2
 3 FOR THE PLAINTIFFS:
 4 ANN K. RITTER, ESQ.
 5 ANDREW P. ARNOLD, ESQ.
 6 ANNE M. KEARSE, ESQ. (Remotely)
 7 MOTLEY RICE LLC
 8 28 Bridgeside Boulevard
 9 Mt. Pleasant, South Carolina 29464
 10 843-216-9250
 11 aarnold@motleyrice.com
 12 aritter@motleyrice.com
 13
 14 FOR THE PLAINTIFFS AND THE DEPONENT:
 15 DAVID KO, ESQ.
 16 KELLER ROHRBACK, PLLC
 17 1201 Third Avenue
 18 Seattle, Washington 98101
 19 206-623-1900
 20 dko@kellerrohrback.com
 21
 22 FOR CAYAHOGA COUNTY:
 23 SALVATORE C. BADALA, ESQ. (Remotely)
 24 JOSEPH L. CIACCIO, ESQ. (Remotely)
 HUNTER J. SHKOLNIK, ESQ. (Remotely)
 NAPOLI SHKOLNIK PLLC
 400 Broadhollow Road
 Melville, New York 11747
 631-224-1133
 sbadala@napolilaw.com
 jciaccio@napolilaw.com

1 APPEARANCES (Continued):
 2 FOR THE TENNESSEE PLAINTIFFS:
 3 ANTHONY A. ORLANDI, ESQ. (Remotely)
 4 BRANSTETTER, STRANCH & JENNINGS, PLLC
 5 223 Rosa L. Parks Avenue
 6 Nashville, Tennessee 37203
 7 615-254-8801
 8 aorlandi@bsjfirm.com
 9
 10 FOR PURDUE PHARMA:
 11 ALISON COONEY, ESQ.
 12 DECHERT LLP
 13 35 West Wacker Drive
 14 Chicago, Illinois 60601
 15 312-646-5800
 16 alison.cooney@dechert.com
 17
 18 FOR McKESSON CORPORATION:
 19 MICHA NANDARAJ GALLO, ESQ.
 20 COVINGTON & BURLING LLP
 21 620 Eighth Avenue
 22 New York, New York 10018
 23 212-841-1000
 24 mnandarajgallo@cov.com
 FOR AMERISOURCEBERGEN DRUG CORPORATION:
 KELLY H. HIBBERT, ESQ.
 REED SMITH LLP
 1301 K Street, NW
 Washington, DC 20005
 202-414-9226
 khibbert@reedsmith.com

1 APPEARANCES (Continued):
 2
 3 FOR WALGREENS:
 4 ALEX HARRIS, ESQ.
 5 BARTLIT BECK LLP
 6 1801 Wewatta Street
 7 Denver, Colorado 80202
 8 303-592-3197
 9 alex.harris@bartlitbeck.com
 10
 11 FOR WALMART:
 12 EDWARD M. CARTER, ESQ.
 13 JONES DAY
 14 325 John H. McDonnell Boulevard
 15 Columbus, Ohio 43215-2673
 16 614-469-3939
 17 emcarter@jonesday.com
 18
 19 FOR CVS INDIANA, LLC and CVS RX SERVICES,
 20 INC.:
 21 DANIEL P. MOYLAN, ESQ.
 22 ZUCKERMAN SPAEDER, LLP
 23 100 East Pratt Street
 24 Baltimore, Maryland 21202-1031
 410-949-1159
 dmoylan@zuckerman.com
 FOR ALLERGEN FINANCE:
 MARIA PELLEGRINO RIVERA, ESQ.
 KIRKLAND & ELLIS LLP
 300 North LaSalle
 Chicago, Illinois 60654
 312-862-7170
 mrivera@kirkland.com

1 APPEARANCES (Continued):
2
3 FOR JANSSEN and JOHNSON & JOHNSON DEFENDANTS:
4 JUSTIN E. RICE, ESQ.
5 TUCKER ELLIS LLP
6 950 Main Street
7 Cleveland, Ohio 44113
8 216-696-3670
9 justin.rice@tuckerellis.com
10
11 FOR HBC SERVICE, INC.:
12 SCOTT D. LIVINGSTON, ESQ.
13 MARCUS & SHAPIRA LLP
14 One Oxford Centre, 35th Floor
15 301 Grant Street
16 Pittsburgh, Pennsylvania 15219-6401
17 412-338-4690
18 livingston@marcus-shapira.com
19
20 FOR ENDO PHARMACEUTICALS INC., ENDO HEALTH
21 SOLUTIONS INC., PAR PHARMACEUTICAL COMPANIES,
22 INC. (f/k/a PAR PHARMACEUTICAL HOLDINGS,
23 INC.)
24
25 SEAN MORRIS, ESQ.
26 ARNOLD & PORTER KAYE SCHOLER LLP
27 777 South Figueroa Street
28 Los Angeles, California 90017
29 213-243-4222
30 sean.morris@arnoldporter.com
31
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1 APPEARANCES (Continued):
2
3 FOR TEVA PHARMACEUTICALS USA, INC., CEPHALON,
4 INC., WATSON LABORATORIES, INC., ACTAVIS LLC,
5 ACTAVIS PHARMA, INC., f/k/a WATSON PHARMA,
6 INC.:
7 MELISSA M. COATES, ESQ. (Remotely)
8 ELIZABETH BUECHNER, ESQ. (Remotely)
9 MORGAN, LEWIS & BOCKIUS LLP
10 200 S. Biscayne Boulevard, Suite 5300
11 Miami, Florida 33131-2339
12 305-415-3419
13 melissa.coates@morganlewis.com
14
15 FOR RITE AID:
16 CAROLYN A. SILANE, ESQ. (Remotely)
17 MORGAN, LEWIS & BOCKIUS LLP
18 101 Park Avenue
19 New York, New York 10178-0060
20 212-309-6734
21 carolyn.silane@morganlewis.com
22
23 FOR HENRY SCHEIN, INC., and HENRY SCHEIN
24 MEDICAL SYSTEMS, INC.:
25 CHRISTOPHER BOECK, ESQ. (Remotely)
26 LOCKE LORD LLP
27 2200 Ross Avenue, Suite 2800
28 Dallas, Texas 75201
29 214-740-8445
30 christopher.boech@lockelord.com
31
32
33
34
35
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37
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1 P R O C E E D I N G S

2

3 THE VIDEOGRAPHER: We are now

4 on the record. My name is Robert

5 Martignetti. I am a videographer for

6 Golkow Litigation Services. Today's

7 date is May 3, 2019, and the time is

8 9:03 a.m.

9 This video deposition is being

10 held in Boston, Massachusetts, In Re:

11 National Prescription Opioid

12 Litigation.

13 The deponent is Jeffrey

14 Liebman, Ph.D.

15 Will counsel please identify

16 themselves.

17 MS. RITTER: Ann Ritter,

18 counsel for the plaintiff.

19 MR. KO: Good morning. David

20 Ko of Keller Rohrback on behalf of

21 plaintiffs and on behalf of the

22 witness.

23 MR. ARNOLD: Andrew Arnold on

24 behalf of the plaintiffs.

1 MR. HARRIS: Alex Harris on

2 behalf of Walgreen Company and

3 Walgreen Eastern Company.

4 MS. GALLO: Micha Nandaraj

5 Gallo from Covington & Burling for

6 McKesson.

7 MR. RICE: Justin Rice from

8 Tucker Ellis on behalf of Johnson &

9 Johnson and Janssen.

10 MR. CARTER: Ed Carter for

11 Walmart.

12 MS. RIVERA: Maria Rivera from

13 Kirkland & Ellis on behalf of the

14 Allergen entities.

15 MR. MOYLAN: Daniel Moylan,

16 Zuckerman Spaeder, for CVS.

17 MS. COONEY: Alison Cooney from

18 Dechert on behalf of Purdue Pharma.

19 MR. LIVINGSTON: Scott

20 Livingston on behalf of HBC.

21 MS. GRANT-SMITH: Kia

22 Grant-Smith from Ropes & Gray on

23 behalf of Mallinckrodt, LLC and

24 SPECGX, LLC.

1 MR. MORRIS: And Sean Morris

2 from Arnold & Porter on behalf of the

3 Endo entities and the Par entities,

4 defendants.

5 THE VIDEOGRAPHER: The court

6 reporter is Maureen Pollard, and will

7 now swear in the witness.

8 BOECK: I'm sorry, we also have

9 some attorneys on the phone.

10 This is Chris Boeck of Locke

11 Lord on behalf of Henry Schein, Inc.

12 and Henry Schein Medical Systems, Inc.

13 MR. ORLANDI: This is Tony

14 Orlandi for the Tennessee plaintiffs.

15 MS. KEARSE: Ann Kearse for the

16 plaintiffs.

17 MR. BADALA: Salvatore Badala

18 for the plaintiff.

19 MS. SILANE: Carolyn Silane,

20 Morgan Lewis, for Rite Aid.

21 MS. COATES: Melissa Coates for

22 the Teva defendants.

23 MS. HIBBERT: I stepped in

24 late. Kelly Hibbert on behalf of

1 AmerisourceBergen from Reed Smith.

2 MR. MORRIS: Have we sworn in

3 the witness?

4

5 JEFFREY B. LIEBMAN, Ph.D.,

6 having been duly identified and sworn, was

7 examined and testified as follows:

8 EXAMINATION

9 BY MR. MORRIS:

10 Q. Dr. Liebman, good morning.

11 A. Good morning.

12 Q. We met off the record and I

13 just introduced myself, but again, I'm Sean

14 Morris, counsel for the Endo entity

15 defendants as well as the Par defendants in

16 this case.

17 Have you given a deposition

18 before?

19 A. No.

20 Q. Okay. I'm sure your counsel

21 has gone over some of the ground rules, but

22 let me go over them as well.

23 Any reason that you can't give

24 your best testimony today, any medications or

1 conditions?

2 A. No.

3 Q. Okay. The court reporter is

4 taking down everything that you and I say,

5 plus any objections, which means that if you

6 can wait for me to ask my questions, and I'll

7 wait for you to finish your answers, that

8 will make for a cleaner record.

9 Fair enough?

10 A. Sounds good.

11 Q. Okay. And that also means that

12 we need to have audible, oral answers.

13 Shakes of the head, nods don't really come

14 across very well on the transcript.

15 Fair enough?

16 A. Makes sense.

17 Q. I'm going to try to ask

18 understandable questions. If you don't

19 understand something, let me know, but if you

20 answer the question I'm going to assume that

21 you've understood it.

22 Fair enough?

23 A. Sounds good.

24 Q. During the course of the day

1 we'll be taking breaks. If there's some

2 reason you need to take a break, let me know,

3 and we'll do our best to accommodate you, as

4 long as there's not a question pending, okay?

5 A. Good.

6 Q. Okay. Have you been asked to

7 provide testimony at the trial in this case?

8 A. I have not been told one way or

9 the other whether that's planned.

10 Q. Okay. Are you setting aside

11 time in October of this year to potentially

12 testify in the trial of this case?

13 A. I have not been asked to do so.

14 Q. If you are asked to testify,

15 will you?

16 A. Yes.

17 Q. Have you ever testified as an

18 expert in litigation before?

19 A. No.

20 Q. Have you ever testified in a

21 court proceeding as a layperson before?

22 A. No.

23 Q. Have you given other sorts of

24 testimony, congressional testimony, things

1 like that?

2 A. Yes.

3 Q. Okay. And what -- how many

4 times, what circumstances?

5 A. I've testified several times as

6 a -- well, as an economist, professor, in

7 front of a variety of congressional

8 committees, and I also testified a couple

9 times when I was an Obama administration

10 official in front of congressional

11 committees.

12 Q. Any of those times when you've

13 testified or spoken with Congress related to

14 addressing the opioid abuse issues?

15 A. No.

16 Q. If you could pull out now -- go

17 to Exhibit 1.

18 (Whereupon, Liebman Exhibit

19 Number 1 was marked for

20 identification.)

21 BY MR. MORRIS:

22 Q. Which is your CV. Or I should

23 ask you, I've marked what looks like your CV.

24 A. Looks like it to me, too.

1 Q. Okay. That was what was
2 provided to us through counsel. Is that your
3 CV?
4 A. Yes.
5 Q. Okay. And I see that it's
6 marked -- or dated as March, 2019. Was it
7 current as of March, 2019?
8 A. The one you've handed me is not
9 the current one. You have handed me an
10 April, 2018 one.
11 Q. I apologize.
12 Okay. So was it current as of
13 April, 2019?
14 A. This one says 2018 on it.
15 Q. 2018. I'm all discombobulated.
16 Why don't we do this.
17 Can you pull out your report
18 from March 25th, which I believe has been
19 marked as Exhibit 4?
20 (Whereupon, Liebman Exhibit
21 Number 4 was marked for
22 identification.)
23 BY MR. MORRIS:
24 Q. Okay. And in the back as one

1 of the appendix I believe is your CV. Have
2 you found that?
3 A. Yes.
4 Q. And which one -- what is that
5 one dated?
6 A. March, 2019.
7 Q. Okay. So is it current as
8 of -- was it correct as of March, 2019?
9 A. Yes.
10 Q. Okay.
11 MS. RITTER: You're referring
12 now to Exhibit 4?
13 MR. MORRIS: I am referring to
14 Exhibit 4.
15 MS. RITTER: Okay.
16 MR. MORRIS: I went out of
17 order because obviously --
18 MS. RITTER: Right, but we
19 didn't mark it, so...
20 BY MR. MORRIS:
21 Q. Got it. All right. So since
22 March, 2019, has there been any updates to
23 your CV?
24 A. I have written some things, and

1 I don't know if they were already on here.
2 But do you want me to --
3 Q. If you could check. What do
4 you have in mind as to what it is that you've
5 written recently?
6 A. It's already on here, so paper
7 number 18 is, I think, my most recent paper.
8 So it's on here.
9 Q. Got it.
10 Okay. And you have a Ph.D in
11 economics, correct?
12 A. I do.
13 Q. And do you have a particular
14 area in economics in which you specialize?
15 A. I study public sector economics
16 which includes health economics, and I'm also
17 an expert in public sector budgeting, budget
18 policy. And then my other area of expertise
19 is in the design and management of government
20 social programs.
21 Q. Can you break down that last
22 category for me a little bit more? What does
23 having expertise in design and management of
24 government social programs mean?

1 A. So I teach a course called
2 Government Turnarounds at the Harvard Kennedy
3 School, and the basic framing of that course
4 is -- imagine you were just appointed by a
5 governor to be a cabinet secretary for a
6 social service agency, what do you do to
7 accomplish your missions.
8 Q. And I see on your resume and in
9 other documents there's a reference to the
10 Government Performance Lab.
11 A. Yes.
12 Q. Can you explain what that is?
13 A. Yes. So for the last seven
14 years I have been running the Government
15 Performance Lab, which I founded, and it is
16 an effort to figure out and do research on
17 how government agencies, particularly social
18 service agencies, can be more effective. And
19 the way we operate is I hire recent graduates
20 of public policy schools, law schools,
21 business schools, social work programs, and I
22 embed them full-time in state, city, or
23 county social service agencies, often for a
24 year, sometimes two or three years to work on

1 whatever their current problems are.

2 And so the goal of this is to

3 both help those particular jurisdictions

4 solve those problems, but also to build a set

5 of knowledge that can be spread through

6 teaching and through executive education and

7 other committees to improve how government

8 social services operate and the kinds -- and

9 to make more rapid progress in solving some

10 of our nation's most difficult social

11 problems.

12 Q. I've also seen reference to the

13 Pay for Success model?

14 A. Yes.

15 Q. Can you explain what that is?

16 A. Yeah. There's a general

17 question about whether there are ways to

18 improve the implementation of social programs

19 by getting everyone involved in delivering

20 services, the government, the non-profits

21 that are being contracted with, focused on

22 outcomes. Sometimes when one runs programs,

23 people think about filling slots in programs,

24 and sort of output measures and not thinking

1 about the ultimate outcomes that we're trying

2 to achieve.

3 And so the Pay for Success

4 initiatives have been exploring whether

5 there's other ways to structure how social

6 service deliveries -- how social service

7 delivery organizations are paid by government

8 to try to orient everyone toward achieving

9 the outcomes that are the ultimate goals of

10 these programs.

11 Q. Is it fair to say that part of

12 the way the Pay for Success model works is

13 that you find the programs that work, and

14 focus and fund those as opposed to those that

15 don't achieve the outcomes?

16 A. I don't think I would describe

17 it exactly that way. I really think it's

18 much more about the government saying we are

19 going to pay for the outcomes we're trying to

20 achieve rather than just paying for an

21 organization to deliver services, and by

22 doing that it causes the outcome to be

23 measured and creates an incentive such that

24 the whole system, including the government

1 agency and the providers, wake up every day

2 and say, how are we going to move things

3 toward that outcome.

4 Q. So an important part of that is

5 being able to measure the outcome in order to

6 determine whether or not the program has been

7 a success, is that true?

8 A. Yes.

9 Q. We'll come back to some of your

10 work with GPL in a little bit. For the

11 moment I want to talk about some other

12 disciplines and see if there are things that

13 you have expertise in.

14 Is it correct that you're not a

15 medical doctor?

16 A. Correct.

17 Q. And so you don't have a medical

18 degree?

19 A. I do not.

20 Q. And you've never treated

21 patients?

22 A. I have never treated patients.

23 Q. So I assume, then, that you've

24 never treated anybody with chronic pain?

1 A. That's correct.

2 Q. And you've never prescribed an

3 opioid?

4 A. That's correct.

5 Q. In your reports and elsewhere,

6 you use the term opioid use disorder, or OUD.

7 Are you familiar with that term?

8 A. I am.

9 Q. You never treated anybody with

10 OUD, is that correct?

11 A. That's correct.

12 Q. Or any other addictions, you

13 never treated them?

14 A. Not as a medical provider.

15 I've helped government agencies that I worked

16 in trying to get people treatment, but I have

17 not personally --

18 Q. Fair enough. I was asking

19 about whether you've treated them in a

20 medical way. You've not done that?

21 A. No.

22 Q. Also true that you're not a

23 pharmacist?

24 A. That's correct.

1 Q. You're not a pharmacologist?

2 A. That's correct.

3 Q. You're not a toxicologist?

4 A. That's correct.

5 Q. You're not a marketing expert,

6 correct?

7 A. That's correct.

8 Q. You're not a statistician?

9 A. Well, as an economist I have

10 substantial training in statistics and teach

11 courses in statistics, so my Ph.D is in

12 economics, not statistics, though.

13 Q. You're not an epidemiologist?

14 A. That's correct.

15 Q. And you're not an expert in

16 public health, true?

17 A. I'm -- health economics is part

18 of my expertise. I'm not exactly sure where

19 one draws the line between health economics

20 and public health.

21 Q. Understood.

22 But you don't have, for

23 example, a master's in public health?

24 A. That's correct.

1 Q. Are you an expert in the -- or

2 let me ask this first.

3 Have you heard of the

4 suspicious order monitoring program and

5 requirements that are under the Controlled

6 Substances Act, the federal --

7 A. I'm broadly aware of it.

8 Q. But you're not an expert in

9 those requirements?

10 A. No.

11 Q. You're not an expert in FDA

12 regulatory issues?

13 A. It's not a specialty. I've

14 worked on them when I've been in the

15 government.

16 Q. So you're familiar with FDA

17 issues, but you wouldn't consider yourself to

18 be an expert in the FDA requirements, for

19 example?

20 A. That's correct.

21 Q. Prior to this case, you've

22 never studied programs or policies that might

23 best reduce the impact of opioid abuse, true?

24 A. No, that's not true.

1 Q. Okay. In what context have you

2 studied programs or policies that might best

3 reduce the impact of opioid abuse?

4 A. I helped teach a course at the

5 Harvard Kennedy school that was addressing

6 these issues.

7 Q. And which course was that?

8 A. So our master's in public

9 policy students in their first year take

10 courses in economics and statistics and

11 management and politics, and then at the end

12 of their first year we stop the whole core

13 curriculum for two weeks and we do a

14 simulation where they are given a real world

15 policy problem to address.

16 And last year and the year

17 before -- I can't remember if it was the

18 three years before, but at least last year

19 and the year before the simulation we gave

20 them was to come up with a solution. One of

21 the years was to -- I think the simulation

22 was to advise the governor of Kentucky -- I

23 forget what the other framing was -- around

24 what that state's solution to the opioid

1 crisis should be.

2 Q. Was this -- and I'm sorry, this

3 was a part of the course? I'm just trying to

4 figure out how to describe what it is

5 you're --

6 A. It's -- why don't we call it --

7 we will call it the spring exercise.

8 Q. The exercise, okay. The spring

9 exercise. The spring exercise, was this

10 before or after you were retained as an

11 expert in this case?

12 A. Before.

13 Q. And this was a two-week

14 exercise, is that true?

15 A. The intense part of it.

16 There's obviously planning and curriculum

17 design and arranging for all the experts to

18 come visit campus as part of this. But the

19 sort of intense part is two weeks for the

20 students.

21 Q. Okay. And this is an exercise

22 to help students learn how to do these sorts

23 of analyses?

24 A. How to pull all the parts of

1 the curriculum together and perform in a
2 professional setting with a realistic policy
3 scenario.

4 Q. Okay. And were the results of
5 this exercise presented to -- for example,
6 you said one of them was based on assuming
7 you were the advising the governor of
8 Kentucky. Were the results presented to the
9 governor of Kentucky?

10 A. I actually don't remember how
11 we did it that year. What we generally do is
12 on the very last day we bring in outside
13 officials to receive the briefings, and then
14 sometimes we take the winning team of all the
15 teams and get them in front of the real
16 person. I don't remember if we ended up
17 doing -- I wasn't -- that part of logistics
18 wasn't my responsibility.

19 Q. And as part of this exercise,
20 who is -- who were the people doing the work
21 on it, the students that are --

22 A. The students.

23 Q. So this isn't something that
24 you are doing as an analyst to review,

1 correct, to review the policies that best
2 might address the impact of opioid use,
3 correct?

4 A. I wasn't generating a solution.
5 I was thinking about what materials would be
6 relevant for the students to read and which
7 outside experts did we want to hear from as
8 part of that period.

9 Q. Okay. Other than the spring
10 exercise that we've been talking about, have
11 you studied any programs or policies that
12 might best reduce the impact of opioid abuse,
13 other than in the context of this litigation?

14 A. In some of our Government
15 Performance Lab work we have been involved
16 with jurisdictions that were thinking about
17 addiction issues.

18 Q. Any that were specific to
19 opioid addiction?

20 A. So all of them were broader,
21 included other addictions, but opioid
22 addictions were part of -- were at the
23 forefront of several of them.

24 Q. And which jurisdictions are you

1 thinking of?

2 A. I'm thinking of Florida,
3 Connecticut, Louisville.

4 If you don't mind, I'll look at
5 my report and see if I forgot one. I think
6 those are the three that --

7 Q. And you're looking at now
8 Exhibit 4?

9 A. Exhibit 4. I would say
10 Bernalillo County, Albuquerque belongs in
11 that category, too.

12 Q. Have you ever done any, outside
13 the context of this litigation, calculations
14 about how much it might cost to provide
15 services to reduce the impact of opioid
16 abuse?

17 A. Specifically opioid abuse?

18 Q. Yes.

19 A. No.

20 Q. And again specific to opioid
21 abuse, have you ever done any calculations as
22 to where money might best be spent to reduce
23 the impact of opioid abuse, outside the
24 context of this litigation?

1 A. Outside of the specific GPL
2 projects I mentioned, no.

3 Q. And those GPL projects didn't
4 address just opioid abuse, correct?

5 A. Right, they included other
6 addictions.

7 Q. And as part of those GPL
8 projects, were opioid issues culled out as a
9 separate category? For example, just where
10 I'm going, right, you know, were you looking
11 at the ways in which governments might
12 address abuse, but were there, like, separate
13 spreadsheets or line items with respect to
14 opioids?

15 MR. KO: Object to the form.

16 A. Can you simplify that question
17 for me?

18 BY MR. MORRIS:

19 Q. I'll try. I'll grant you that
20 was not a very good question. I'll come back
21 to that concept.

22 A. Okay.

23 Q. Did you bring anything with you
24 today to prepare for your deposition?

1 A. No.

2 Q. What did you do to prepare for

3 your deposition today?

4 A. I reviewed my report. I

5 reviewed some of the sources that I cite in

6 the report. I met with counsel.

7 Q. Okay. Let's start with the

8 review of the report.

9 When you say the review of the

10 report, which report did you review?

11 A. Primarily the supplemental

12 report.

13 (Whereupon, Liebman Exhibit

14 Number 6 was marked for

15 identification.)

16 MR. MR. MORRIS:

17 Q. Okay. And is that -- if you

18 take a look at what has been marked as

19 Exhibit 6 --

20 A. Yes.

21 Q. -- that's one that's marked --

22 is dated April 3, 2019?

23 A. Correct.

24 Q. That's what you're referring to

1 as the supplemental report that you reviewed

2 to prepare for this deposition?

3 A. Assuming that it has the

4 appendix tables, the answer is yes.

5 Q. That's a good notation. So the

6 reports themselves have appendix attached to

7 them, correct?

8 A. That's correct.

9 Q. But then there are separate

10 Excel spreadsheets that have the appendix

11 plus additional material. Are you familiar

12 with those?

13 A. Certainly.

14 Q. Okay. Did you review any of

15 the Excel spreadsheets as part of preparing

16 for your deposition today?

17 A. Yes.

18 Q. And which ones did you review?

19 A. There's one big spreadsheet

20 that has all the tabs in it, and so I looked

21 at several of those tabs.

22 Q. Got it. And we've gotten

23 different versions of that Excel document,

24 and my question is, do you know which one

1 you've looked at?

2 A. I presume it's the -- whatever

3 the one was that was supplied to you most

4 recently.

5 Q. You said that you also looked

6 at some of the citations from your report?

7 A. Correct.

8 Q. Which citations did you look

9 at?

10 A. I don't think it would be

11 simple for me to -- I looked through a bunch

12 of them.

13 Q. Okay. Let me ask --

14 A. We could flip through and I

15 could start telling you which ones I looked

16 at recently, if that's helpful.

17 Q. Let me ask it this way.

18 How many of the citations did

19 you review to prepare for the deposition,

20 roughly?

21 A. I'm not sure I can actually

22 give you that estimate in a useful way.

23 Q. Was it more than ten of the

24 citations?

1 A. Yes.

2 Q. How long did you spend

3 preparing for your deposition today?

4 A. I haven't added up those hours

5 in a useful way either. Do you want me to

6 walk you through my schedule of the last

7 couple of weeks and tell you which days I

8 spent time on this?

9 Q. Let's do it this way. Let me

10 back into that.

11 You said you also met with

12 counsel. How many times did you meet with

13 counsel?

14 A. I met with counsel this past

15 Monday, and I believe two other -- three

16 times, I think, total.

17 Q. Before or after Monday?

18 A. Before Monday.

19 Q. And how long did you meet with

20 counsel for each of those meetings?

21 A. I think two of them were, let's

22 say, two-thirds of the day, six hours or

23 something like that, and one was a half day.

24 Q. When did you first become an

1 expert consultant in this litigation?

2 A. Late last spring. I can't

3 remember if it was May or June, but in that

4 time frame.

5 Q. And how did you come to be

6 retained as an expert consultant in

7 litigation?

8 A. David got in touch with me.

9 Q. That was my next question.

10 Who contacted you?

11 A. David Ko.

12 Q. And did you know Mr. Ko before

13 he reached out to talk to you about working

14 on this litigation?

15 A. I did not.

16 Q. And what was -- do you know why

17 Mr. Ko contacted you?

18 MR. KO: I instruct the witness

19 not to disclose any privileged

20 communications. So to the extent that

21 you're asking why or rationale or

22 substance or context, I actually

23 instruct you not to answer. So next

24 question.

1 BY MR. MORRIS:

2 Q. You don't have any answer other

3 than what would be encompassed within the

4 instruction not to answer?

5 MR. KO: Actually let me be

6 clear. I'll instruct the witness not

7 to answer the why in the question that

8 you asked.

9 A. Can you ask the question over

10 again? I am now mixed up.

11 BY MR. MORRIS:

12 Q. Fair enough. I'm going to come

13 back to this in a different way.

14 How much are you charging for

15 your services in this litigation?

16 A. \$900 an hour for my general

17 services, and \$1,000 an hour for the

18 deposition.

19 Q. And putting aside the

20 deposition and the preparation for the

21 deposition, how many hours have you spent

22 working on the litigation?

23 A. Just under 300 hours.

24 Q. And have you had people working

1 with you as part of this litigation project?

2 A. Yes.

3 Q. And who -- how many and who? I

4 know that's a compound question, but...

5 A. Answer in the opposite

6 direction. So people from Compass Lexecon,

7 and I guess there are three main people I

8 have worked with from that firm.

9 Q. Have you worked with anybody to

10 assist you in preparing your report other

11 than people from Compass Lexecon?

12 A. No.

13 Q. So nobody, for example, from

14 the GPL?

15 A. No.

16 Q. And who are the people at

17 Compass Lexecon that have assisted you with

18 the report?

19 A. So the person who leads the

20 team is Hal Sider, and then Constance Kelly,

21 and then Alice Kaminski. And then I think

22 they had some colleagues that I didn't

23 directly interact with who were presumably

24 working with them.

1 Q. So do you know how many hours

2 they've spent working on and assisting you

3 with your report?

4 A. I do not.

5 Q. Do you know how much they

6 charge?

7 A. I do not.

8 Q. You said that you spent about

9 300 hours at \$900 an hour. Is that about --

10 what's the total amount of money that you

11 have charged to this point?

12 A. About \$250,000.

13 Q. Would you agree with me that

14 chronic pain is a serious medical condition?

15 A. I'm not a medical expert, so I

16 don't have an expert opinion on that.

17 Q. Let me ask you this way.

18 Do you agree that chronic pain

19 affects millions of people in the United

20 States?

21 A. I have never looked at

22 statistics on that, but, you know, based on

23 casual reading of newspapers, that sounds

24 like a plausible number.

1 Q. Do you agree that chronic pain
2 affects people within Summit County, Ohio?
3 A. Yes.
4 Q. And same thing, that chronic
5 pain affects people within Cuyahoga County,
6 Ohio?
7 A. Yes.
8 Q. Do you agree that there are
9 risks associated with untreated chronic pain?
10 A. I think you're asking me to
11 talk about things that I am, as an economist,
12 not qualified to talk about.
13 Q. Fair enough.
14 Do you agree that there are
15 monetary costs to society due to untreated
16 chronic pain?
17 A. Yes.
18 Q. And is that something that
19 you've studied or examined?
20 A. No.
21 Q. This may also be one that
22 you're not qualified to answer, but let me
23 just explore.
24 Do you agree that in some

1 patients opioids may be the only effective
2 treatment for chronic non-cancer pain?
3 MR. KO: Object to the form.
4 A. I think you're asking me
5 clinical questions again that are beyond my
6 area of expertise.
7 BY MR. MORRIS:
8 Q. What about this one, do you
9 agree that prescription opioids are approved
10 by the FDA as safe and effective for their
11 intended use?
12 MR. KO: Object to the form.
13 A. That's not something I have any
14 expertise about.
15 BY MR. MORRIS:
16 Q. Do you agree that the majority
17 of patients who have ever been prescribed an
18 opioid do not become addicted?
19 MR. KO: Object to the form.
20 A. That is consistent with what
21 I've read in the literature.
22 BY MR. MORRIS:
23 Q. Do you agree that individuals
24 can and do become addicted to illicit opioids

1 without ever first obtaining a legal
2 prescription for an opioid?
3 A. I think the literature finds
4 that about 80 percent who end up with illicit
5 opioids start with prescription opioids, but
6 that leaves 20 percent that didn't.
7 Q. Do you agree that the question
8 of who may become addicted is highly
9 individualized?
10 MR. KO: Object to the form.
11 A. I don't think I know what
12 highly individualized means in this context,
13 and I think you're asking me another clinical
14 question.
15 BY MR. MORRIS:
16 Q. Okay. Well, let me ask you
17 this way.
18 You just referred to a
19 statistic that you've read about the number
20 of people who become addicted who haven't
21 taken or been prescribed a prescription
22 opioid versus those that become addicted to
23 illicit opioids. And my question is, do you
24 agree that the question of who may become

1 addicted is an individualized question,
2 meaning you've got to look to the actual
3 patients or individual as opposed to
4 statistics?
5 MS. RITTER: Objection. Form.
6 A. I think I don't understand your
7 question still.
8 BY MR. MORRIS:
9 Q. Yeah. Sure.
10 You'd agree with me that who
11 might become addicted to an opioid, whether
12 it's a prescription medication or an illicit
13 opioid, depends on a variety of factors
14 including things like genetics,
15 predisposition, environmental factors, things
16 like that?
17 MS. RITTER: Objection. Form.
18 A. I'm not an expert on that, but
19 it sounds plausible to me.
20 BY MR. MORRIS:
21 Q. Do you agree that how to treat
22 someone who has an addiction or an opioid use
23 disorder is an individualized issue?
24 MR. KO: Object to the form.

1 Asked and answered.

2 A. I believe that individual

3 physicians have to figure out how to treat

4 individual patients.

5 BY MR. MORRIS:

6 Q. Let me turn back to the

7 Government Performance Lab for a minute. Let

8 me mark, or give you -- this has been marked

9 as Exhibit 2.

10 (Whereupon, Liebman Exhibit

11 Number 2 was marked for

12 identification.)

13 BY MR. MORRIS:

14 Q. Dr. Liebman, this is a printout

15 from the website for the Government

16 Performance Labs. Do you recognize this is

17 something that comes from the GPL website?

18 A. Yes.

19 Q. If you go to the second

20 paragraph, and this is -- it's got a title of

21 it called "Our Mission," in the second

22 paragraph, the one that begins "The mission

23 of Harvard Kennedy School Government

24 Performance Labs," further on in that

1 paragraph it says, "We hire and train

2 full-time employees, embedding them in

3 government agencies to lead 12 to 36 months

4 intensive reform projects."

5 Do you see that?

6 A. I do.

7 Q. That's not something that

8 happened here in preparation for your report

9 in this case, correct?

10 A. So are you asking, did I --

11 Q. Let me -- in doing your

12 analysis --

13 A. Yeah.

14 Q. -- nobody -- we already talked

15 about the fact that nobody from GPL worked on

16 assisting you with your report, correct?

17 A. That's correct.

18 Q. Okay. So nobody from GPL was

19 imbedded for 12 to 36 months in reviewing the

20 opioid issues in Cuyahoga or Summit, correct?

21 A. So when we get ready to do a

22 project at the GPL, we will scope a project

23 for some period of time before we put someone

24 on the ground. When it becomes time to

1 implement and actually carry out the policy,

2 that's when we put someone on the ground.

3 Q. Understood. And implementation

4 hasn't happened yet? That's a bad question.

5 In any event, there wasn't any

6 embedding of somebody for 12 to 36 months as

7 part of this project, correct?

8 A. "This project" being my report

9 in the opioid case?

10 Q. Correct.

11 A. Correct.

12 Q. Okay. I'll give you now what's

13 been marked as Exhibit 3.

14 (Whereupon, Liebman Exhibit

15 Number 3 was marked for

16 identification.)

17 BY MR. MORRIS:

18 Q. And, Dr. Liebman, Exhibit 3

19 is -- it's like a press release of some sort

20 that refers to some of the projects that the

21 Government Performance Lab was engaged in. I

22 just wanted to draw your attention to, on the

23 second page of Exhibit 3, there's a reference

24 to Cuyahoga County, Ohio.

1 Do you see that?

2 A. Yes.

3 Q. Okay. So GPL conducted a

4 project for Cuyahoga County, Ohio previously?

5 A. Yes.

6 Q. Is that project ongoing?

7 MS. RITTER: Objection to the

8 form.

9 A. The fellow we placed there we

10 placed for six months and then got hired by

11 the county, and so we don't have a direct

12 involvement but we are still in touch and in

13 conversations around the project.

14 BY MR. MORRIS:

15 Q. And what was the nature of the

16 project that GPL did for Cuyahoga County?

17 A. We were working with their

18 human services agency around some of their

19 workforce programs.

20 Q. And was it a specific set of

21 goals that were -- what were the goals that

22 the project was hoping to achieve?

23 A. To try to strengthen the

24 programs that connect people receiving public

1 assistance to employment.

2 Q. That project didn't have

3 anything to do with opioids, did it?

4 A. Not in any direct way.

5 Q. Was that project -- did that

6 project have any connection to how you were

7 retained in this case?

8 A. No.

9 Q. Did you do any work yourself on

10 the Cuyahoga County GPL project?

11 A. Yes.

12 Q. And what did you do?

13 A. I spoke to our fellow and

14 coached that fellow in his work. I did a

15 joint meeting with the fellow and the

16 government official he was reporting to.

17 Q. And who is the fellow that

18 became employed by Cuyahoga?

19 A. Oh, you're going to get me in

20 trouble if I --

21 Q. I won't tell him.

22 A. -- forgot his name. All right.

23 I'm going to be in big trouble now. You'll

24 have to --

1 Q. That's okay. We'll come back

2 to it. Yes, I'll give you a chance to come

3 up with that later.

4 How did the funding for this

5 work? Did Cuyahoga provide funding to the

6 GPL? How was the project funded?

7 A. No. Nearly all of our projects

8 are philanthropically funded, and we give our

9 services to the governments pro bono.

10 Q. Is the goal, then, once a

11 project that GPL does initial work for is

12 proven to be successful, the government takes

13 it over and funds it going forward?

14 A. Yeah, I mean, sometime, yes.

15 The goal is to get something off the ground

16 in a way that it continues after our fellow

17 is no longer there.

18 Q. And for GPL projects, is there

19 -- how often is it where after the initial

20 project is begun that it turns out that it's

21 not something that could be successful and,

22 therefore, isn't picked up by the government?

23 A. Maybe one in ten times.

24 Q. Okay. Let me do this to orient

1 us with the various reports that -- or

2 portions of the reports that are in front of

3 you, because then I'm going to ask you

4 questions about the specifics of what you

5 were asked to do in this case.

6 If you can pull out -- let's

7 just walk through, we've already looked at a

8 couple of them -- but Exhibit 4. And is that

9 the original report you submitted, the one

10 dated March 25, 2019?

11 A. It looks like it.

12 Q. And I'll represent to you that

13 we printed it out with the appendices and

14 whatnot.

15 If you go to Exhibit 5.

16 (Whereupon, Liebman Exhibit

17 Number 5 was marked for

18 identification.)

19 A. I think it would be after 4.

20 This okay.

21 BY MR. MORRIS:

22 Q. Do you recognize what Exhibit 5

23 is?

24 A. Yes.

1 Q. Okay. And what is Exhibit 5?

2 A. It is the tables associated

3 with the March 25th report.

4 Q. Okay. Yes. And I will

5 represent to you that's the printout we had,

6 or the Excel file that we printed out that

7 went along with the March 25th report.

8 If you go to Exhibit 6, we

9 talked about this one, I think, a little bit

10 already. What is Exhibit 6, when you get

11 there?

12 A. It's the supplemental report

13 that was filed on April 3rd.

14 Q. Okay. If you go to Exhibit 7.

15 (Whereupon, Liebman Exhibit

16 Number 7 was marked for

17 identification.)

18 BY MR. MORRIS:

19 Q. Do you recognize what Exhibit 7

20 is?

21 A. I'm guessing these are the

22 tables that go with that report. They look

23 like that.

24 Q. Correct. Exhibit 8?

1 (Whereupon, Liebman Exhibit
2 Number 8 was marked for
3 identification.)
4 BY MR. MORRIS:
5 Q. I'll represent to you that we
6 got a file that further updated things dated
7 April 17th as an Excel spreadsheet. If you
8 want to look at Exhibit 9 as well, that was
9 an errata that was provided to us along with
10 that.
11 (Whereupon, Liebman Exhibit
12 Number 9 was marked for
13 identification.)
14 A. Okay.
15 BY MR. MORRIS:
16 Q. Do you recognize what
17 Exhibits 8 and 9 are?
18 A. Yes. Let me just compare
19 something here to make sure I understand
20 what's going on, but I think so.
21 (Witness reviewing document.)
22 A. Yes. Okay. I recognize this.
23 Q. Okay. So what is Exhibit 8 and
24 its companion Number 9?

1 A. It's the most recent set of
2 numbers that we have provided to you.
3 Q. Okay. And what's the
4 difference between the Exhibit 7, which is
5 the Excel spreadsheet that went along with
6 the April 3rd report, and Exhibit 8?
7 A. In the Exhibit 7 version I
8 reversed two numbers on the child welfare
9 population. There's cases under
10 investigation and the cases that are active
11 open cases, and we -- and I entered them
12 wrong on the spreadsheet and reversed them.
13 Q. And that's what Exhibit 9 is
14 designed to highlight, what the changes --
15 A. It shows the change that
16 results.
17 Q. Okay. And if you can look at
18 Exhibit 10.
19 (Whereupon, Liebman Exhibit
20 Number 10 was marked for
21 identification.)
22 BY MR. MORRIS:
23 Q. Do you recognize what
24 Exhibit 10 is?

1 A. It looks like a list of the
2 materials that I considered in writing my
3 report.
4 Q. Okay. We got that as a
5 separate file recently. Do you know why
6 Exhibit 10 was provided to us?
7 A. I don't actually know in
8 detail. I know that some documents, I guess,
9 were not in the original one, but I don't
10 know the details of that.
11 Q. Okay. Fair enough. I went
12 through them that way, just so you know what
13 you have in front of you, because we'll be
14 going back and forth now between some of
15 them.
16 If you can take out Exhibit 6,
17 which is the April 3rd report.
18 A. Excellent.
19 Q. Okay. If you could go to
20 Paragraph 1. Sorry, I need to get there
21 myself.
22 Okay. And in Exhibit 1, you
23 refer to Cuyahoga County and Summit County as
24 the communities.

1 Do you see that?
2 A. Yes.
3 Q. Why did you cull out those two
4 counties?
5 A. Those were the two counties
6 that I was asked to design and cost an
7 abatement plan for.
8 Q. Do you know that there's
9 currently a trial set for October, 2019 in
10 which those two counties are plaintiffs?
11 A. Yes.
12 Q. Do you have any opinions about
13 any jurisdictions other than Cuyahoga or
14 Summit Counties that you've been asked to
15 create?
16 MS. RITTER: Objection.
17 If he can -- if he's been asked
18 to do some, it would be protected
19 privileged communications, so I would
20 instruct him not to answer if you're
21 asking about litigation.
22 MR. MORRIS: I'm asking whether
23 he's been asked to do -- and I
24 understand your objection. I'm not

1 necessarily agreeing with it.

2 BY MR. MORRIS:

3 Q. But my question is, have you

4 been asked to come up with any opinions about

5 any jurisdictions other than Cuyahoga and

6 Summit County?

7 MS. RITTER: Again, objection.

8 Instruct him not to answer to the

9 extent you're asking about litigation.

10 BY MR. MORRIS:

11 Q. Are there any non-litigation

12 opinions with respect to jurisdictions other

13 than Cuyahoga and Summit Counties regarding

14 analysis of the opioid abuse issues?

15 MR. KO: Object to the form.

16 A. Sorry, I don't think that's a

17 question anymore. Can you start over,

18 please?

19 BY MR. MORRIS:

20 Q. Sure.

21 Counsel instructed not to

22 answer with respect to if you've done work to

23 create opinions about jurisdictions, other

24 jurisdictions in connection with litigation,

1 so I'm asking the question, have you -- do

2 you have any opinions about any jurisdictions

3 other than Cuyahoga and Summit Counties

4 outside of litigation?

5 MS. RITTER: Objection to the

6 form.

7 A. What does do I have an opinion

8 mean?

9 BY MR. MORRIS:

10 Q. Opinions regarding opioid abuse

11 issues and potential abatement costs.

12 A. I have not constructed any

13 other estimates for any other jurisdictions

14 other than these counties. And I want to be

15 clear, the counties encompass not just the

16 county governments, but the cities and towns

17 and unincorporated areas within them.

18 Q. Do you have any plans to expand

19 your opinions in this case to any

20 jurisdictions other than Cuyahoga or Summit

21 Counties? And I understand that includes

22 towns and cities within those counties. But

23 other than that?

24 MR. KO: Object to the form.

1 A. Sorry. So I have not been

2 asked to do work on any other jurisdictions

3 outside of these two counties and the areas

4 within them.

5 BY MR. MORRIS:

6 Q. Is one of the areas within the

7 opinions that you're providing the City of

8 Cleveland?

9 A. Yes.

10 Q. And do the issues affecting the

11 City of Cleveland -- I'll come back to that.

12 What's your understanding about

13 the claims that these two communities have

14 brought in this litigation?

15 A. I'm broadly aware that the

16 litigation is about whether improper

17 activities by the defendants led to and

18 exacerbated the opioid crisis in a way that

19 caused suffering and deaths and other harms

20 in these communities.

21 Q. One of the things I should have

22 asked you before, are you a -- do you have

23 any training in the law?

24 A. No.

1 Q. Do you know what the claims,

2 the causes of actions are in this case?

3 A. Not in any specific way.

4 Q. Do you know who the defendants

5 are?

6 A. I know broadly that there are

7 producers and distributors and retailers

8 involved.

9 Q. Do you know the names of any of

10 them?

11 A. I have some guesses based on

12 the -- what the -- who the attorneys said

13 they represented going around the table.

14 Q. Let me ask it this way.

15 Prior to coming in today and

16 hearing people announce who they're

17 representing, did you know who the defendants

18 were?

19 A. If you'd asked me, I couldn't

20 have given an exact list, but I've certainly

21 heard names come up in the discussions.

22 Q. Which names have you heard come

23 up in the discussions?

24 A. I don't know which ones came up

1 in discussions and which I read in the
2 newspaper.

3 Q. I asked about whether --
4 broadly speaking your understanding of the
5 nature of the plaintiffs' claims. Do you
6 have an understanding about what the
7 defendants' defenses are?

8 A. Not in any significant way.

9 Q. Okay. Let's go back to your
10 report then. If you can take a look at
11 Paragraph 2 of Exhibit 6.

12 A. Yes.

13 Q. Okay. And in Paragraph 2 in
14 describing what you were asked to do, it says
15 that you were "asked to present opinions
16 related to (i) identifying how the
17 Communities can best utilize the tools and
18 practices available to implement programs
19 aimed at furthering the communities' efforts
20 to ameliorate and abate the crisis they face;
21 and (ii) estimating the cost of providing
22 these services."

23 Do you see that?

24 A. I do.

1 Q. And do those two things
2 describe the opinions you were asked to
3 render in this case?

4 A. Yes.

5 MR. KO: Object to the form.

6 BY MR. MORRIS:

7 Q. And are those two things -- do
8 those describe the opinions that you intend
9 to offer in this case?

10 A. Yes.

11 Q. Any other opinions that you
12 intend to offer in this case?

13 MS. RITTER: Objection to the
14 form. Asked and answered.

15 A. I think the report stands for
16 itself. I'm trying to design a program that
17 would abate the crisis and figure out how
18 much that would cost.

19 BY MR. MORRIS:

20 Q. Understood.

21 And so in terms of what you
22 were asked to do in this case, these two
23 categories describe them?

24 A. Yes.

1 Q. And there's nothing else I'm
2 missing, in other words, that there's
3 something -- some other set of opinions that
4 you intend to provide in this case?

5 MS. RITTER: Objection to the
6 form. Foundation.

7 A. My full work on this case
8 involves constructing an abatement plan and
9 figuring out the cost of it.

10 BY MR. MORRIS:

11 Q. Am I correct you're not
12 offering an opinion regarding the cause of
13 what you refer to as the crisis?

14 A. That's correct.

15 Q. And you're not offering an
16 opinion in this case regarding the conduct of
17 any particular defendant?

18 A. That's correct.

19 Q. Or the conduct of any
20 particular group of defendants?

21 A. That's correct.

22 Q. And so no opinion regarding the
23 role or responsibility of any defendant in
24 injuring any person?

1 A. I'm not providing any opinion
2 on that.

3 Q. And you're not offering any
4 opinion regarding the role or responsibility
5 of any defendant in causing what you refer to
6 as the opioid crisis?

7 A. I missed the difference between
8 that question and the previous one.

9 Q. There may not have been.

10 A. Okay. Ask it again.

11 Q. You're not rendering an opinion
12 regarding the role or responsibility of any
13 defendant in causing what you refer to as the
14 opioid crisis?

15 A. Correct.

16 Q. Now, this one is slightly
17 different. No opinion regarding the role or
18 responsibility of any defendant in causing a
19 public nuisance?

20 A. That's correct.

21 Q. And you're not offering any
22 opinion that assigns any percentage of fault
23 to any defendant, is that correct?

24 A. That's correct.

1 Q. And you have no opinion
2 regarding the specific -- any specific
3 defendant's products?
4 A. Well, I suppose some of the
5 products that are -- for example, the
6 medication-assisted treatment might be
7 produced by one of the defendants, although
8 I'm not sure about that.
9 Q. Fair enough.
10 You're not rendering an opinion
11 regarding the efficacy, for example, of any
12 defendant's prescription opioid medication?
13 A. That's correct.
14 Q. And you're not rendering an
15 opinion regarding the marketing or
16 distribution activities of any defendant,
17 correct?
18 A. I mean, but there are places
19 where the abatement needed responds to the
20 need, and so in some way some of these things
21 may be linked together.
22 Q. You haven't studied the
23 marketing practices, for example, of any
24 particular defendant?

1 A. No.
2 Q. And you haven't studied or
3 analyzed the distribution practices of any
4 particular defendant, correct?
5 A. Correct.
6 Q. Correct, then, that you can't
7 -- let me put it this way. Sorry.
8 It's correct, then, that you're
9 not offering an opinion about whether what
10 you referred to as the opioid crisis would
11 look any different today if any manufacturer
12 had not marketed its opioids?
13 MR. KO: Object to the form.
14 A. There was some negatives in
15 that sentence that I need to parse. Would
16 you repeat that one more time?
17 BY MR. MORRIS:
18 Q. Sure. Let me -- yeah, let's do
19 it this way rather than getting confused.
20 Is it correct that you are not
21 rendering -- well, let me start again myself.
22 Is it correct that you can't
23 say whether what you refer to as the opioid
24 crisis would look any different today if any

1 one of the manufacturers had not marketed its
2 opioid -- prescription opioid products?
3 MR. KO: Same objection.
4 A. I think as someone who has
5 spent the last year thinking about this
6 crisis, I don't think I agree that -- I don't
7 know anything about that topic, but it is not
8 the subject of my report.
9 BY MR. MORRIS:
10 Q. You're not offering any opinion
11 about that in this case?
12 MR. KO: Object to the form.
13 A. My opinion involves designing a
14 program to abate the crisis and figuring out
15 the cost of that, and that's what it is.
16 BY MR. MORRIS:
17 Q. And then just to be clear then,
18 it's not about -- you're not rendering an
19 opinion regarding the conduct of any
20 defendant, correct?
21 MS. RITTER: Objection to the
22 form. Asked and answered.
23 MR. MORRIS: I'll strike that.
24 That's fine.

1 BY MR. MORRIS:
2 Q. In marching through the
3 different exhibits that have already been
4 marked and the two different reports, what's
5 the difference between the March 25th report,
6 your original report which is Exhibit 4, and
7 the April 3rd report which is Exhibit 6?
8 A. The March 25th report describes
9 an abatement plan that has 19 components to
10 it, and provides cost estimates for seven of
11 those that account for just under 80 percent
12 of the total dollars.
13 And then in the April 3rd
14 report, the April 3rd report includes
15 estimates for the other 12 components of the
16 plan.
17 Q. What changed between April 25th
18 and April 3rd that required a supplemental
19 report?
20 A. I was initially asked by the
21 attorneys to include estimates of -- for the
22 seven categories in the initial report, and
23 then I was subsequently asked to include 12
24 more.

1 Q. In your March 25th report,
2 though, those additional categories are
3 identified, correct?
4 A. Yes, I had constructed an
5 overall abatement plan that included all 19,
6 and that was -- that whole plan is laid out
7 in the March 25th report.
8 Q. So was it that -- well, why
9 didn't you provide the cost estimate for
10 those additional 19 -- I'm sorry, was it the
11 additional 12?
12 A. Additional 12.
13 Q. -- the additional 12 as part of
14 your March 25th report?
15 MR. KO: Objection. Asked and
16 answered.
17 A. The attorneys asked me to put
18 seven in, so I put seven in.
19 BY MR. MORRIS:
20 Q. You weren't asked to do -- to
21 give actual estimates for the other 12 until
22 after March 25th?
23 MR. KO: Objection.
24 MS. RITTER: Objection. Asked

1 and answered.
2 A. I was asked to include seven in
3 this report, and then they asked me to
4 produce the rest of the numbers.
5 BY MR. MORRIS:
6 Q. Could you have included the
7 additional 12 in your March 25th report?
8 A. Yes.
9 Q. Am I understanding you right
10 that the only reason you didn't was because
11 the attorneys hadn't asked you for it?
12 MS. RITTER: Objection. Asked
13 and answered.
14 A. If the attorneys said, please
15 put these seven in this report, then I put
16 them in the report.
17 BY MR. MORRIS:
18 Q. If you had put the 12
19 additional cost estimates that ultimately
20 were in your April 3rd report in the
21 March 25th report, would they have been the
22 same numbers?
23 MS. RITTER: Objection to the
24 form.

1 A. The answer -- yes, they would
2 have been the same numbers.
3 BY MR. MORRIS:
4 Q. And you had those numbers as of
5 March 25?
6 MR. KO: Objection. Asked and
7 answered three times.
8 A. I had done estimates, I had
9 been working on estimates of all the
10 categories all along the way.
11 BY MR. MORRIS:
12 Q. We talked about the April 17th
13 Appendix D update that had the errata that
14 went along with it that's Exhibits 8 and 9,
15 and you explained that before, that you had
16 transposed numbers.
17 A. Mm-hmm.
18 Q. Do you intend to offer any
19 other supplements to your report?
20 A. There are two other changes
21 that in reviewing for this deposition I would
22 now like to offer. One is that in appendix
23 -- find the appendix. In Appendix C, which
24 lists the interviews I had with members of

1 the community, I incorrectly identified Scott
2 Osiecki as working at the Cuyahoga Medical
3 Examiner's Office, he works at the ADAMHS
4 Board. That's the first one.
5 Q. Okay.
6 A. And then in addition, in
7 reviewing my spreadsheets, I would like to
8 improve my estimates of the -- let's find the
9 table so I can point you to it.
10 Q. Sure. Just so I can follow
11 along, which one are you looking at now,
12 which exhibit?
13 A. I am looking at Exhibit 6,
14 April 3rd report. If you would turn to --
15 just give me one second to figure out what
16 table it is. If you would turn to Tables
17 C.11 and S.11 which have the estimated cost
18 of social support housing --
19 Q. Hold on one second,
20 Dr. Liebman, I want to make sure I'm there
21 now. Okay. I'm there.
22 A. In Table C.11, C.12, which
23 contain the cost of social support housing, I
24 would like to improve my methodology that was

1 used there.

2 Q. Okay. So how would you improve

3 your methodology?

4 A. So in estimating the number of

5 homeless per night, I have the total number

6 of homeless people in Cuyahoga County, but I

7 would like to separate that out into the

8 homeless individuals and the homeless

9 families, which would bring down the number

10 of homeless -- the number of housing units a

11 bit and bring down the costs a bit.

12 Q. Okay. So how would that look

13 then? You've got right now the number for

14 total number, average number of homeless per

15 night for -- I'm looking at the one for

16 Cuyahoga, is 1,808. How does your change

17 impact that, or how does it look?

18 A. That will come down a bit. I

19 don't have the exact numbers with me.

20 Q. Okay. So do you have actual

21 spreadsheets that you're working with?

22 A. Yes, I've made a new version of

23 the spreadsheet.

24 Q. Okay. But you don't have that

1 with you today?

2 A. I don't have that with me.

3 Q. Is the work done?

4 A. Yes.

5 Q. Any reason you didn't bring it

6 with you today?

7 A. I was told you bring nothing to

8 a deposition.

9 Q. This change you're talking

10 about is just to the Table 11, but for both

11 Cuyahoga and --

12 A. Yes, it brings down the costs a

13 little bit.

14 Q. Okay. And how much does it

15 bring down the cost?

16 A. Again, I don't have the table

17 with me.

18 Q. Order of magnitude or estimate?

19 A. Let me look and see if I can --

20 let me not do this from memory because I will

21 screw it up. But it's -- it's, you know,

22 it's not -- this is a small -- to begin with

23 -- it is not -- it will not change either of

24 the first two digits in the aggregate cost of

1 this plan.

2 Q. Okay. Does the -- for line

3 item 2, I'm just trying to understand the

4 best I can as I sit here without having the

5 spreadsheet, you have the OUD prevalence

6 among homeless at 17.9 percent --

7 A. Yeah.

8 Q. -- for Cuyahoga -- I guess for

9 both. Does that change?

10 A. No. The only other thing that

11 changes is I'm going to improve line 4 as

12 well which at the moment takes the average of

13 the cost of a housing unit for a one-person

14 unit and a two-bedroom unit, and in the

15 version here it's equally weighting those

16 two, because I'm now disaggregating the

17 population between the individuals and the

18 families. Individuals are a bigger share of

19 the population, so I'm going to put more

20 weight on the lower one-bedroom cost than the

21 two-bedroom cost, and that brings down that

22 number a bit as well.

23 Q. So the cost for a one-bedroom

24 is lower than the -- for example, for

1 Cuyahoga, \$13,000?

2 A. The cost of one-bedroom is

3 below that, and the cost of two is above it.

4 This is an average. The average is going to

5 move more toward the one-bedroom number.

6 Q. What prompted you to make the

7 change to Table 11?

8 A. As I was going through the

9 spreadsheets to prepare for this I looked at

10 what I'd done, and I thought there was a

11 better way to do it.

12 MR. MORRIS: Obviously ask for

13 and request that -- the spreadsheet to

14 be provided, while reserving our

15 objection to its late production.

16 Is there any reason that we

17 can't get it forthwith?

18 MS. RITTER: Are you asking

19 him? If you want to ask us, Dave and

20 I can talk about what -- Counsel, is

21 it a question for him, or is it a

22 question for us?

23 MR. MORRIS: I would like it as

24 soon as possible and, if possible,

1 before the end of the deposition so we
2 can at least have it.

3 MS. RITTER: We'll take your
4 request under advisement.

5 Also, can we take a break?
6 It's been just a little bit over an
7 hour.

8 MR. MORRIS: Okay.

9 THE VIDEOGRAPHER: The time is
10 10:16 a.m., and we're off the record.
11 (Whereupon, a recess was
12 taken.)

13 THE VIDEOGRAPHER: The time is
14 10:31 a.m., and we're on the record.

15 BY MR. MORRIS:

16 Q. Dr. Liebman, before the break
17 we were talking about the changes you had to
18 Table 11.

19 A. Yes.

20 Q. When did you note that had you
21 changes to 11? When did you decide that you
22 wanted to make changes?

23 A. In the last couple days as I
24 was preparing.

1 Q. And when did you notify counsel
2 that you had changes?

3 A. Sometime in the last couple
4 days.

5 Q. If you can go back to
6 Exhibit 6, which is your April 3rd report.
7 And turning -- going back to Paragraph 2 that
8 we were talking about before which has the
9 description of the two opinions, in the end
10 of the first opinion that you were asked to
11 provide it refers to "efforts to ameliorate
12 and abate the crisis."

13 Do you see that?

14 A. Mm-hmm.

15 Q. What do you mean by "the
16 crisis"?

17 A. The conditions such that people
18 in the two communities are suffering, dying.
19 The communities are having resources
20 stretched, all of the impacts of the opioid
21 epidemic.

22 Q. Okay. And that was my next --
23 one of my next questions. You also in the
24 paragraph above refer to a public health

1 emergency.

2 Do you see that?

3 A. Yeah.

4 Q. Is that the same thing as the
5 crisis?

6 A. I would say the people I've
7 interacted with in the bellwether communities
8 seem to use crisis, emergency, epidemic
9 pretty interchangeably, and I think there has
10 been a, if I recall right, a technical
11 emergency declared by the State of Ohio, so
12 there is -- I think there's maybe a little
13 bit more term of art to that one.

14 But the point here is that
15 there is a big problem that needs to be
16 addressed, and my report is about how to
17 abate that problem.

18 Q. Okay. And so in your report
19 sometimes you refer to crisis, sometimes you
20 refer to epidemic. Is there a difference in
21 the way you're using those terms?

22 A. No. I'm treating those as
23 synonyms.

24 Q. And let me go back to that.

1 An epidemic or crisis of what
2 exactly?

3 A. That there are lots of harms
4 happening in these communities because of the
5 effects of people being addicted to opioids,
6 and people are having lives ruined. People
7 are dying. The communities are having
8 difficulty delivering standard public
9 services because so much is being allocated
10 to deal with this crisis.

11 Q. Let me talk about a couple more
12 terms that you use in the report.

13 You obviously refer to opioids.
14 What do you use that term to mean in your
15 report?

16 A. It encompasses heroin,
17 synthetics like fentanyl, prescriptions,
18 OxyContin, the whole range of the related
19 compounds.

20 Q. So not just prescription
21 medication?

22 A. No. Opioids means the full
23 range in the way I'm using it.

24 Q. And so there's also -- I see

1 you reference sometimes to illicit or illegal
 2 opioids. What does that refer to?
 3 A. That would refer to things like
 4 heroin that are not legal, not for legal use.
 5 Q. Are you familiar with different
 6 types of illicit opioids?
 7 A. I mean, there's illicit ones
 8 that are always illicit. There are ones that
 9 can be illicit only if used in a way that
 10 they were not intended to be used. So
 11 there's a range --
 12 Q. You're getting -- yeah, so
 13 you're getting to one of the questions I
 14 have.
 15 So when you're use the term
 16 illicit opioid, for example, are you
 17 including in that prescription medication
 18 that is in the hands of somebody who
 19 shouldn't have it?
 20 A. So just to be clear, there's
 21 nothing in my plan that is distinguishing
 22 between illicit and not illicit. My
 23 assignment was to come up with an abatement
 24 plan to adjust the whole opioid crisis, and

1 not to distinguish.
 2 So, you know, I think the only
 3 place that I remember that the language comes
 4 up is in a couple of the footnotes that --
 5 pointing out that I'm dealing with the whole
 6 crisis and not distinguishing.
 7 Q. Okay. And we'll get there when
 8 we're going through some of the specifics,
 9 but some of the costs that you are examining
 10 differ, depending on whether it's a
 11 prescription opioid medication versus an
 12 illicit opioid?
 13 MS. RITTER: Objection to the
 14 form.
 15 A. So my plan attempts to abate
 16 the harm, the harms that come from people
 17 misusing prescription opioids and from people
 18 who are misusing illicit opioids.
 19 BY MR. MORRIS:
 20 Q. Okay. We talked about this
 21 term before, opioid use disorder, or OUD.
 22 What do you use that term to mean?
 23 A. I use that to encompass the
 24 disorder associated with the full range again

1 of opioids.
 2 Q. There's also, though, heroin
 3 use disorder, or HUD, which sometimes is
 4 referred to. How do you use that term?
 5 A. That would be the subset. So I
 6 use opioid use disorder to be the overall,
 7 and heroin use disorder is a subset of that.
 8 Q. Going back to Paragraph 2 in
 9 Exhibit 6, and we were talking about the
 10 phrase efforts to ameliorate or -- sorry, "to
 11 ameliorate and abate the crisis," then we
 12 started talking about crisis.
 13 What does ameliorate mean?
 14 A. To reduce the harms.
 15 Q. And does that mean to lessen
 16 the harms in any way? Is there a metric that
 17 you're using for that?
 18 MR. KO: Object to the form.
 19 A. The plan I put together is
 20 meant to make a deep and rapid -- to have a
 21 deep and rapid effect in reducing harms.
 22 BY MR. MORRIS:
 23 Q. It also says "and abate." How
 24 are you using the term abate?

1 A. Similarly to reduce the harms
 2 associated with this crisis.
 3 Q. Okay. For purposes of your
 4 report, is there any difference between
 5 ameliorate and abate?
 6 A. I think of the whole plan as an
 7 abatement plan that is trying to move as fast
 8 as we can to stop people from dying and stop
 9 the other harms associated with the opioid
 10 crisis.
 11 Q. Is there a specific goal that
 12 would define what has abated the crisis?
 13 A. I don't have a specific goal.
 14 I'm trying to make as much progress as we can
 15 make as fast as we can.
 16 Q. And not to make light of it,
 17 I'm just trying to figure out what the bounds
 18 are. So if the plan were to probably impact
 19 ten people, that would in your terminology
 20 abate the public nuisance?
 21 MS. RITTER: Objection to the
 22 form.
 23 A. I'm really not trying to -- I
 24 don't have any -- I'm trying to put forth a

1 plan that will do much more than that, and I
 2 don't have a -- the parsing of these words
 3 isn't something that I have thought hard
 4 about.
 5 BY MR. MORRIS:
 6 Q. I understand. Like I said, I'm
 7 not trying to be pejorative or make light of
 8 this at all. I'm just trying to figure out
 9 whether there's some trigger at which
 10 something becomes, ah, we've reached, quote,
 11 abatement that you've measured as part of
 12 your activity, your opinions.
 13 MS. RITTER: Objection to the
 14 form. I'm not even sure there was a
 15 question.
 16 A. I've forgotten the question.
 17 If you wouldn't mind answering -- asking it
 18 again.
 19 BY MR. MORRIS:
 20 Q. Sure. I'll come back to it.
 21 When we get to some specifics --
 22 A. Okay.
 23 Q. -- I'll turn back to it.
 24 If you could turn now to

1 Paragraph 14. We were looking at Paragraph 2
 2 before which was raised in terms of the
 3 opinions you were asked to provide, and 14
 4 refers to things that you have concluded, and
 5 then identifies an A and a B, in the first
 6 sentence at least.
 7 Do you see that?
 8 A. Mm-hmm.
 9 Q. Is there -- let me do it this
 10 way. Can you read the first sentence?
 11 A. Of Paragraph 14?
 12 Q. Of Paragraph 14.
 13 A. "I conclude that there is a
 14 framework within the area of applied
 15 economics by which an economist can
 16 reasonably evaluate the level of abatement
 17 resources needed for the next 15 years in the
 18 communities of Cuyahoga County and Summit
 19 County, Ohio, to abate the opioid crisis and
 20 the cost of those resources."
 21 Q. Okay. You use the term
 22 "framework" here in discussing the
 23 conclusions that you've reached. What does
 24 framework mean?

1 A. I'm saying that there is a
 2 methodology that one can use to do what I did
 3 in this report.
 4 Q. And as an economist, are you
 5 offering an opinion about what specific
 6 programs should be implementing to abate the
 7 crisis?
 8 A. I am doing what I always do
 9 when I am asked by a committee to help them
 10 make progress on a social problem, which is I
 11 consult with national -- with the national --
 12 I read literature that's been written about
 13 the problem, often nationally, I consult with
 14 national experts. I then learn enough about
 15 the local situation to craft a solution that
 16 matches the local conditions.
 17 So that's a framework that I
 18 have applied over and over again both when I
 19 have served in government and in my work at
 20 the Government Performance Lab.
 21 Q. Okay. And if you look in
 22 Figure 1, there's a listing of the 19
 23 specific elements of the abatement plan. Who
 24 came up with those 19 elements?

1 A. I did.
 2 Q. And you came up with those 19
 3 elements to -- in your opinion would be the
 4 things that would abate the crisis?
 5 A. Exactly.
 6 Q. And you came up with these 19
 7 elements of the plan even though you're not
 8 an expert in the treatment of people in
 9 communities with opioid use disorder?
 10 MR. KO: Object to the form.
 11 A. I did exactly what I do every
 12 time I'm asked to solve a policy problem; I
 13 consult with experts, I study the literature,
 14 I talk to people in the community, and then I
 15 put together the policy proposal that I
 16 believe can best help that community.
 17 BY MR. MORRIS:
 18 Q. This is the first time you've
 19 done such a thing for the opioid crisis, as
 20 you've termed it, correct?
 21 MR. KO: Object to the form.
 22 A. This is the first time that I
 23 have assembled an abatement plan for a
 24 community on the opioid crisis, that is

1 correct.

2 BY MR. MORRIS:

3 Q. Are you relying on other people

4 to say what should be part of the 19

5 elements?

6 A. So I am relying on the sources

7 I cite in my report. So, for example, the

8 CDC has recommendations, the Surgeon General

9 has recommendations. I'm relying on advice I

10 got from a variety of experts, including

11 Dr. Lembke, Dr. Alexander and other, and I'm

12 relying on what I learned from talking to

13 local medical experts, local people working

14 on these policy issues in the community.

15 Q. Okay. Let me ask it this way.

16 When did you start developing

17 your abatement plan?

18 A. About a year ago.

19 Q. And was that in the summer of

20 2018?

21 A. Yes.

22 Q. And you then submitted the

23 first report in March of 2019?

24 A. Yes.

1 Q. So that's approximately nine

2 months?

3 A. Mm-hmm.

4 Q. You've got to say yes or no.

5 A. Yes, approximately.

6 Q. Did you have a full-time job

7 during that period that wasn't working on

8 this opinion?

9 A. Yes.

10 Q. I may have asked you this

11 before. Do you know how many hours the

12 individuals at Compass Lexecon spent working

13 on --

14 A. I do not.

15 Q. -- your opinion?

16 A. I do not.

17 Q. Who did the drafting of your

18 opinion?

19 A. The writing?

20 Q. Yes.

21 A. I wrote nearly all of the first

22 draft. There were a few paragraphs where I

23 asked someone under my direction to draft

24 them, and then I reviewed them and edited

1 them.

2 Q. And who did you ask under your

3 direction to make edits, or do additional

4 drafting?

5 A. The three people at Compass

6 Lexecon that I mention before.

7 Q. And what direction did you give

8 them?

9 MR. KO: I'd advise the witness

10 not to disclose -- to the extent these

11 communications have been with or were

12 involving counsel, I'd instruct the

13 witness not to answer.

14 A. So an example would be I would

15 say to them that I would like them to find

16 out if there's any literature, further

17 literature on the topic that I found a couple

18 papers on, and find that literature for me in

19 case I wanted to cite additional sources.

20 BY MR. MORRIS:

21 Q. Anything else you can think of

22 for direction you gave them?

23 MR. KO: Same instruction.

24 A. Not specifically.

1 BY MR. MORRIS:

2 Q. How long did you spend doing

3 interviews of people?

4 A. Can we turn to the exhibit that

5 has the interviews on it?

6 Q. Sure.

7 A. That would help me give you an

8 answer to that question.

9 Q. Sure. We're still on

10 Exhibit 6?

11 A. Yes. In Exhibit 6 and we're

12 going to go to Appendix -- one of the

13 appendices, Appendix C, please. So this is

14 the list of interviews we did. I guess we

15 could try to count them up to give you an

16 answer to your question of how long.

17 Q. Let me ask this. How many --

18 were all these interviews done in person?

19 A. No.

20 Q. How many interviews did you

21 conduct that weren't in person?

22 A. So you can see on the list the

23 ones that say "call" were done on the phone,

24 and the ones that say "meeting" were done in

1 person.

2 Q. And when you met with people,

3 aside from the interviewees, were there other

4 people present?

5 A. Yes.

6 Q. And who would that be?

7 A. It varied by meeting.

8 Typically there would be counsel there.

9 Q. How did you determine what

10 documents to review in creating your

11 abatement plan?

12 MR. KO: Same instruction as

13 before. To the extent that these

14 conversations involved or were with

15 counsel, I'd instruct the witness not

16 to answer.

17 A. I did what I always do when I

18 am studying a topic. I do literature

19 searches, I direct people working for me to

20 do additional literature searches, I ask

21 experts if there are other sources that would

22 be relevant, and then I go find those

23 sources. I -- you know, if there's anything

24 in one paper that cites another that looks

1 relevant, I'll go find that. I'll ask the

2 experts, you know, if it's a particular

3 question I'll say, I've seen these three

4 papers, is there anything important that I'm

5 missing? Other people involved, like

6 counsel, will sometimes send me things that

7 they run into that they thought might be

8 relevant to what I'm working on.

9 BY MR. MORRIS:

10 Q. And you said you spent

11 approximately 300 hours in total in working

12 on creating your report for March, 2019?

13 MR. KO: Asked and answered.

14 A. That's correct.

15 BY MR. MORRIS:

16 Q. How much of that time was spent

17 reviewing literature?

18 A. I have not pressed that --

19 separated out the different activities like

20 that in my head.

21 Q. I saw reference to depositions

22 that you've reviewed.

23 A. Mm-hmm.

24 Q. How did you determine which

1 depositions to review?

2 A. Counsel would suggest to me

3 ones that were relevant to the things I was

4 working with, and sometimes would share the

5 whole deposition with me and sometimes a

6 portion.

7 Q. Let's go back to Figure 1 of

8 your April report on Page 7, which is

9 Exhibit 6.

10 You divided the abatement plan,

11 your abatement plan into four main

12 categories, correct?

13 A. That's right.

14 Q. We'll go into details about

15 some of those later, but did you consider any

16 other categories to include?

17 A. They're categories that -- I

18 guess the answer is yes.

19 Q. And which categories did you

20 consider including but not include?

21 A. Well, as I reviewed the

22 literature, some of the recommendations are

23 not relevant for these communities, such as

24 that there should be new research on

1 developing safer pharmaceuticals. That's

2 clearly not something that's going to happen

3 in Cuyahoga or in Summit. It's going to

4 happen at the national level. So things like

5 that I didn't include in my proposal for the

6 bellwethers.

7 Q. Okay. So potential new

8 research for safer pharmaceuticals. Anything

9 else that you considered but did not include

10 in your abatement plan?

11 A. I guess a similar thing would

12 be, you know, Customs department

13 interventions, to inspect more packages

14 coming in from China for fentanyl. Again,

15 that would -- that's not in the scope of

16 what -- is not relevant to the --- for these

17 -- for a plan that could be given in these

18 communities.

19 So there are probably other

20 things in that category, but basically I

21 was -- I tried to incorporate as many of the

22 practices that people were recommending and

23 that had -- I mean, there's a pretty strong

24 consensus in the literature about -- these

1 are not particularly original categories,
 2 just about every one of these reports is
 3 recommending a similar set of things.
 4 Q. So the category that you just
 5 mentioned that is not included -- as not
 6 being, in your view, relevant to something
 7 implemented by the counties is -- you refer
 8 to it as Customs control. That would include
 9 things like law enforcement efforts to stop
 10 illegal or illicit drugs from crossing into
 11 the United States from other countries?
 12 MR. KO: Object to the form.
 13 A. Sorry. Customs does not
 14 include -- you're talking -- you're saying
 15 what would the Customs department activities?
 16 BY MR. MORRIS:
 17 Q. Let's do it this way. Yes. So
 18 let me re-ask the question. I clearly got
 19 off track a little bit.
 20 You're not including in this
 21 abatement plan things like federal law
 22 enforcement designed to try and prevent
 23 illegal drugs from coming into the country,
 24 correct?

1 A. Correct.
 2 Q. Things like illegal or illicit
 3 fentanyl coming into the country and into
 4 these two counties has a major impact on
 5 them, though, correct?
 6 MR. KO: Object to the form.
 7 A. Part of the, obvious -- some of
 8 the -- you know, a lot of the spike in
 9 overdose deaths is from illegal fentanyl, for
 10 example, some of which comes in from outside
 11 the country.
 12 BY MR. MORRIS:
 13 Q. So efforts to stem the flow of
 14 illegal or illicit fentanyl, for example,
 15 coming into the country would be part of
 16 potential ways of abating the problem in the
 17 two counties, correct?
 18 MR. KO: Object to the form.
 19 A. A national strategy absolutely
 20 needs to include that as a component.
 21 BY MR. MORRIS:
 22 Q. It's just not part of what your
 23 opinion for an abatement plan for these two
 24 particular counties includes?

1 A. Right. I was asked to focus on
 2 these counties, but, you know, if you think
 3 about the overall abatement strategy needed
 4 for the country, it would cost more than what
 5 I'm doing here because there are other
 6 components at other levels of government.
 7 Q. I asked the question in terms
 8 of whether there were other categories that
 9 you considered but did not include.
 10 You have elements within those
 11 categories. Were there other elements within
 12 these categories that you considered but did
 13 not include?
 14 A. There likely are, but there
 15 aren't any that are on the top of my mind
 16 right now.
 17 Q. Hold on a second, I dropped my
 18 pen.
 19 A. No problem.
 20 Q. If you go back to Paragraph 7
 21 of Exhibit 6.
 22 A. Yes.
 23 Q. In the last sentence you're
 24 describing some of the government service

1 that you've engaged in in your career, and
 2 you say "I supervised the development of cost
 3 estimates of complicated multi-faceted
 4 government initiatives," and then you give
 5 some examples.
 6 A. Mm-hmm.
 7 Q. Would you agree that the --
 8 what you're describing as the opioid crisis
 9 is a complicated multi-faceted issue?
 10 A. Yes.
 11 Q. And one of the things that you
 12 worked on that you include here as an example
 13 is working on the Affordable Care Act of
 14 2010?
 15 A. Yes.
 16 Q. What was your role in that?
 17 A. So during the -- well, during
 18 my time at OMB, I was one of the people who
 19 was on a roughly 20-person team that was
 20 within the White House that was working on
 21 development of legislation, and I
 22 specifically being at OMB had responsibility
 23 over figuring out how to estimate the cost of
 24 different things we were considering

1 including in the legislation.

2 Q. Okay. And that was one of the

3 questions I was going to ask. You mentioned

4 that you had 20 people that were working on

5 that with you at OMB?

6 A. That would be -- that would

7 include throughout the White House. I'm sort

8 of thinking there were more people total

9 working on it, but I'm sort of thinking about

10 the senior level task force that was working

11 on it, 20, 30, something like that.

12 Q. At OMB, how many people were

13 working on the issue of trying to cost out

14 the Affordable Care Act?

15 A. How big was the health team? I

16 don't know that exactly. The total OMB staff

17 is -- there were 500, and I don't know, mid

18 two digits, but I don't know the exact

19 number.

20 Q. And how long did the work you

21 were doing for the -- with the OMB in

22 analyzing the cost of the Affordable Care

23 Act, how long did that take?

24 A. Well, there were a lot of

1 waves. You know, there was sort of our

2 initial figuring out what our policy position

3 was and estimating the cost of that. Then

4 there was the legislation that Senator Baucus

5 was moving and trying to figuring out that,

6 and there was sort of the house -- I mean,

7 there was -- I was working on this issue,

8 though, from the beginning of the

9 administration until the day the Affordable

10 Care Act passed, and then beyond. But any

11 particular estimate, you know, it depended on

12 how much time we had to produce it.

13 Q. In footnote 7 of your report

14 you state that -- if you could go to there --

15 that "My estimates of the plan costs are not

16 reduced to reflect costs arising in

17 connection with heroin use in the community

18 where the individual had never used

19 prescription opioids."

20 Do you see that?

21 A. Yes.

22 Q. What does that mean?

23 A. It means the same thing I told

24 you a little earlier, that my plan is to

1 abate. What I was asked to do was figure out

2 an abatement plan for the whole opioid

3 crisis, and I was not asked to parse out

4 anything having to do with different reasons

5 for components of where that crisis came

6 from.

7 Q. Okay. So in other words, your

8 cost estimates include the cost of treatment,

9 for example, of people who never used

10 prescription opioids?

11 A. Yes.

12 Q. If you were to try and account

13 for individuals in your plan who never used

14 prescription opioids, do you have an estimate

15 as to how much lower the abatement plan would

16 be?

17 A. I have not thought about that.

18 Q. You're noting that the

19 abatement plan is not reduced based on an

20 individual who has never used prescription

21 opioids. Are there other reductions that are

22 included?

23 MS. RITTER: Objection to the

24 form.

1 A. Unless this is a -- nothing is

2 occurring to me, but I may be -- that was a

3 broad question. As we get to individual

4 elements maybe I will see some other place

5 where I --

6 BY MR. MORRIS:

7 Q. Okay. Fair enough. I ask

8 because you cull out specifically in footnote

9 7 that it's not being reduced for that

10 purpose, and I was wondering if there was

11 some category or thing that you have in mind

12 that the plan is being reduced for.

13 A. I think I was just trying to be

14 clear that this was -- that I was addressing

15 the whole crisis.

16 Q. Okay. Let's go to

17 Paragraph 18, please.

18 A. Yes.

19 Q. And there in the first sentence

20 you say that you estimate that the

21 "implementation of the programs of Abatement

22 Plan evaluated to date will cost \$5 billion

23 in Cuyahoga County and \$2.2 billion in Summit

24 County over the next 15 years."

1 Do you see that?

2 A. I do.

3 Q. What do you mean by "to date"?

4 A. I mean, that it is possible

5 that more categories could pop up that

6 experts start recommending as part of the

7 solution to this crisis, and in that case I

8 could amend them in my report in that way.

9 Q. As you sit here today, though,

10 do you have in mind any other categories?

11 A. No.

12 Q. Going on in Paragraph 18, at

13 the bottom of Page 7, the sentence that runs

14 on the next page, it says "In addition, I am

15 informed that the costs of certain services

16 contemplated in the Plan have been or will be

17 provided in documents or testimony from the

18 Counties."

19 Do you see that?

20 A. Yes.

21 Q. What did you mean by that?

22 A. I meant that as this report was

23 being written and lots of other depositions

24 and other things were coming in, it was

1 possible that there would be -- that new

2 numbers would come in that would make it

3 possible for me to come up with better

4 methodologies to improve some of these

5 estimates.

6 Q. And you say that there -- it's

7 your understanding that the costs will be

8 provided in documents or testimony from the

9 counties, implying in the future. Do you

10 have anything in mind?

11 A. No.

12 Q. There's nothing you're aware of

13 that may be coming in the future to be

14 provided to you?

15 A. No.

16 Q. Okay. If you go to

17 Paragraph 19, please.

18 A. Yes.

19 Q. And that paragraph, can you

20 read that paragraph, please?

21 A. "Available studies indicate

22 that an intensive effort like the one

23 described in this plan is needed to address

24 the problems faced in these communities

1 because of the opioid epidemic and further

2 indicate that implementation of such a range

3 of programs will result in reduced mortality

4 and morbidity associated with opioid

5 addiction?

6 Q. Okay. And then you cite -- you

7 have a footnote there, and you cite a couple

8 of papers.

9 Do you see that?

10 A. Yes.

11 Q. Actually it's one paper. It's

12 the Pitt paper?

13 A. Mm-hmm.

14 Q. Have you reviewed the Pitt

15 paper?

16 A. Yes.

17 Q. And is that one of the

18 documents you reviewed to prepare for your

19 deposition today?

20 A. I didn't read every word again,

21 but I did look at it again.

22 Q. Let me get that out. I'll put

23 this together. This is going to be

24 Exhibit 11.

1 (Whereupon, Liebman Exhibit

2 Number 11 was marked for

3 identification.)

4 BY MR. MORRIS:

5 Q. Are you aware that the Pitt

6 paper has the actual article and then a

7 supplement that goes along with it?

8 A. Yes.

9 Q. I'm going to mark them together

10 as a single exhibit, Exhibit 11.

11 Okay. Now, I'm correct, right,

12 that the authors of this article -- and it's

13 entitled "Modeling Health Benefits and Harms

14 of Public Policy Responses to the US Opioid

15 Epidemic." These authors created a model of

16 US adults that have a variety of exposures to

17 opioids and experiences with pain, and

18 attempted to project health outcomes based on

19 11 policy responses to the opioid epidemic?

20 MR. KO: Object to the form.

21 A. These models have created --

22 yes. Well, this paper, the authors created a

23 model and studied 11 policy responses.

24 BY MR. MORRIS:

1 Q. Do you know what kind of model
2 the authors used?

3 A. Called a compartment model.

4 Q. And you didn't create a model
5 for your abatement plan, correct?

6 A. Correct. Or should I say I
7 didn't create a compartment model. I
8 obviously created a budget model.

9 Q. And what's the difference
10 between a compartment model and a budget
11 model?

12 A. A compartment model is a model
13 in which you separate out the population into
14 a bunch of categories, and then you model how
15 people move from one category or compartment
16 to another as time passes.

17 Q. And your budget model then,
18 though, just takes categories and elements of
19 things that might be done to address the
20 issues, opioid issues facing the counties,
21 and try to determine how much those elements
22 are going to cost?

23 MR. KO: Object to the form.

24 BY MR. MORRIS:

1 Q. When you say "budgeting model,"
2 that's what you did, right?

3 A. The budget model figures out
4 the quantity of resources needed to address
5 the epidemic, and then the associated price
6 with each of those quantities that you
7 multiply to get a cost.

8 Q. Now, it's true that you haven't
9 tried to measure any impact that implementing
10 any one or more of the categories that you've
11 included in your abatement plan might have,
12 correct?

13 MR. KO: Object to the form.

14 A. That's correct.

15 BY MR. MORRIS:

16 Q. Now, the authors of the Pitt
17 article -- I refer to as the Pitt article.

18 A. That's fine.

19 Q. The Pitt team noted a number of
20 limitations even under their modeling,
21 correct?

22 A. I think they had a standard
23 section at the end of the paper that
24 discusses this.

1 Q. If you go then -- let's turn to
2 that. If you go to Page e6.

3 A. Okay.

4 Q. And there's a helpful heading
5 that says "Limitations."

6 Do you see that?

7 A. I do.

8 Q. Okay. In that first paragraph
9 the authors write after the first sentence,
10 "First, the drivers behind the opioid
11 epidemic are dynamic, non-linear, and
12 uncertain."

13 Do you agree with that?

14 A. I think it depends. I think
15 it's a complicated, compound sentence. I
16 think we might want to talk about different
17 parts of it.

18 Q. Okay. Let's talk about
19 different parts of it.

20 Do you agree that the drivers
21 behind the opioid epidemic are dynamic?

22 A. So what do "drivers" mean?

23 Q. Do you have an understanding
24 about what the driver -- what drivers mean?

1 A. It is certainly the case that
2 things are going to change over time, that's
3 what dynamic means, but I'm not -- this seems
4 like a pretty vague sentence, so I'm not sure
5 how to agree or disagree with it.

6 Q. Okay. Let's go on to something
7 else.

8 The next sentence, can you read
9 the next sentence, the one that begins
10 "Although"?

11 A. "Although we tested the impact
12 of each policy on multiple potential models
13 of the current state, the epidemic continues
14 to change and may be substantially different
15 in just five years."

16 Q. Do you agree that the epidemic
17 continues to change and may be substantially
18 different in just five years?

19 A. I don't know what
20 "substantially" means in terms of magnitude,
21 but I certainly think the epidemic changes
22 when you -- you know, fentanyl comes into
23 Cuyahoga in a much greater extent and we see
24 a lot more deaths or, you know, lots of

1 things change over time, and it's one of the
2 reasons in my plan that I say one needs to
3 build into the plan a way to modify the plan
4 over time as information comes in.

5 And that's why I put resources
6 in to measure how things are coming in over
7 time, because any time you implement
8 something that is complex like this you want
9 to be able to respond to conditions on the
10 ground promptly.

11 Q. Your abatement plan estimates
12 costs going out 15 years, correct?

13 A. Correct.

14 Q. Why did you choose 15 years to
15 cost out the abatement plan?

16 A. It seemed clear that it was
17 going to take, well, the resources and
18 attention for at least that long to be able
19 to make the progress that needs to be made
20 against the crisis.

21 Q. When you say "the progress that
22 needs to be made," what's your measurement of
23 that progress?

24 A. I don't have a quantitative

1 sense, but it's -- you know, if you look at
2 the opinions of the medical experts like
3 Dr. Lembke, she states quite clearly that we
4 need these kind of resources and this isn't
5 going to be something where two or
6 three years of additional resources is going
7 to make this crisis go away.

8 Q. Understood. I was just -- you
9 had said that you needed 15 years to make the
10 kind of progress, and I was trying to figure
11 out, well, what's the progress then that --
12 measurement that you're using, if any?

13 A. You know, my -- as you
14 mentioned in your question, I was not given
15 the assignment of measuring the impact, and I
16 think one would want to answer your more
17 recent question in that context.

18 Q. You'd agree with me that trying
19 to predict the costs of even a slightly
20 complex problem out over a period of 15 years
21 is difficult?

22 MR. KO: Object to the form.

23 A. Well, projecting 10, 15 years
24 costs of complicated government proposals is

1 done all the time. Congressional budget
2 office does it, we did it at OMB, so it's a
3 pretty standard practice that one does
4 because you have to make decisions based on
5 the information we have today.

6 BY MR. MORRIS:

7 Q. Is it difficult to do that?

8 A. I spent a lot of time getting
9 trained and getting experience to be able to
10 do it well. I guess -- I don't know if I
11 would say about --

12 Q. Let me -- we talked about the
13 fact that the -- what you're referring to as
14 the opioid crisis is a complex, multi-faceted
15 problem. Agree?

16 A. Agreed.

17 Q. And a complex, multi-faceted
18 problem, trying to budget over 15 years for a
19 plan to address it, is a difficult thing to
20 do, correct?

21 MR. KO: Object to the form.

22 A. I don't know what "difficulty"
23 means in this context. It is something I
24 have been trained to do and have done many

1 times in these kind of proposals.

2 BY MR. MORRIS:

3 Q. Difficult to predict
4 accurately?

5 MS. RITTER: Objection.

6 BY MR. MORRIS:

7 Q. Let me be clear. It's not
8 difficult to engage in the process perhaps.
9 Difficult to predict accurately what the
10 projected costs, what the costs will be for a
11 complex problem like the opioid crisis?

12 MS. RITTER: Objection to the
13 form.

14 BY MR. MORRIS:

15 Q. Agreed?

16 A. No, I don't agree. I think
17 it's quite clear from the sources I've
18 discussed that led me to choose the
19 components of these plans, what level of
20 treatment capacity, for example, is needed,
21 and we have a good methodology, solid
22 methodologies to figure out and project that
23 into the future. And so, you know, I think
24 it is possible to generate good forecasts

1 into the future.

2 Q. If you go to Paragraph 20 of

3 your report. And again, we're still on

4 Exhibit 6, which is the April 3rd version of

5 your report.

6 A. Yeah.

7 Q. I believe you mentioned this

8 before in one of your earlier questions --

9 answers -- well, let me do it this way.

10 Can you just read the first

11 sentence?

12 A. "Because it is possible that

13 the epidemic will evolve in ways that either

14 reduce or increase the need for resources

15 relative to my primary estimates, it is

16 appropriate for me as an economist to provide

17 a range of estimates for lower cost and

18 higher cost scenarios."

19 Q. So there you're recognizing

20 that given future events, that actual costs

21 of the plan you're proposing might be higher

22 and they might be lower?

23 A. Yes.

24 Q. Okay. If you can go on to read

1 the next sentence.

2 A. "It is also important to build

3 in feedback mechanisms into the Abatement

4 Plan, so that the level of abatement

5 resources and the allocation of those

6 resources can be adjusted over time as new

7 information about needs becomes available."

8 Q. Is that what you were referring

9 to earlier about the need to be able to

10 assess the implementation of the plan as it

11 goes forward to determine what the costs

12 might be based on new information?

13 MR. KO: Object to the form.

14 A. Yes, I was referring to that

15 sentence, but also to the whole category of

16 the plan that's -- that you can see in Figure

17 1, system coordination, that you need the

18 capacity to do that.

19 BY MR. MORRIS:

20 Q. Right. That's Table 19 of your

21 appendices?

22 A. It's not -- let's see. It's

23 19, but also, for example, the -- I would

24 also include 17, the cost of tracking

1 abatement process.

2 Q. Okay. We'll get to those

3 specifics in a little bit.

4 Do you know what a confidence

5 interval is?

6 A. Yes.

7 Q. What is it?

8 A. It's a measure of statistical

9 uncertainty.

10 Q. And that's a standard

11 requirement in budgeting processes, correct?

12 MR. KO: Object to the form.

13 A. It's pretty unusual to see

14 confidence intervals in budget documents.

15 There are a few where they're used, but

16 it's -- in statistics when you're running a

17 regression and looking at a coefficient,

18 that's the context where we see confidence

19 intervals and use them all the time. You'll

20 sometimes see it done in budget forecasts,

21 but it's the exception, not the rule.

22 BY MR. MORRIS:

23 Q. When you say -- you explain

24 what a confidence interval is by saying it's

1 a measure of statistical uncertainty. Does

2 that mean it's a way of determining or

3 expressing how accurate the person thinks

4 their prediction is?

5 A. Well, it gives you the -- I

6 mean, if you're doing a statistical estimate,

7 you get out of that a point estimate or a

8 mean, and then you might want to know what

9 the full probability distribution is around

10 that point estimate. And the confidence

11 interval, assuming you know that the thing is

12 not only distributed or what the functional

13 form is, helps you understand what that full

14 distribution looks like.

15 Q. And you mentioned that you

16 can -- when you have a point estimate you can

17 have a confidence interval around that. Did

18 I have -- I'm just referring -- I want to

19 direct you to your use of the term "point

20 estimate." That's one of the things you

21 refer to in your answer?

22 A. In answer to your question.

23 Q. Yes.

24 A. Yes.

1 Q. Is the estimates that you
2 provided for the abatement plan, are those --
3 is that a point estimate?
4 MR. KO: Object to the form.
5 A. I wouldn't use that term for it
6 because there wasn't an underlying data
7 sample that I measured something from. The
8 point estimate is a term you use when you --
9 you're measuring, you know, the government
10 does a survey of everyone's wages in the
11 country and you measure the mean wage, and
12 the mean is the point estimate, and you say,
13 you know, there's a distribution around that
14 mean.
15 There wasn't some underlying
16 data exercise here with a sample of that
17 sort. So it's not a term I think I've seen
18 used in the budget literature.
19 BY MR. MORRIS:
20 Q. Give me one second. I'm going
21 to pull out another exhibit here.
22 A. Okay.
23 (Whereupon, Liebman Exhibit
24 Number 12 was marked for

1 identification.)
2 BY MR. MORRIS:
3 Q. Okay. I've handed you
4 Exhibit 12. Do you recognize what Exhibit 12
5 is?
6 A. Yes.
7 Q. What is Exhibit 12?
8 A. It's a guide that the US
9 Government Accountability Office has put out.
10 Q. And this is one of the
11 documents that you cited in your report,
12 correct?
13 A. Yes.
14 Q. If you go to Page 11 of your
15 report.
16 A. Of my report?
17 Q. Yes. And that's where it says
18 in Paragraph 28, the last sentence, "My
19 framework follows the standard approaches
20 used by the Congressional Budget Office, the
21 President's Office of Management and Budget,
22 and the Government Accountability Office in
23 estimating costs and projecting budgets."
24 Do you see that?

1 A. I do.
2 Q. And footnote 23 is a citation
3 to the GAO Cost Estimating and Assessment
4 Guide?
5 A. It is.
6 Q. And is the Exhibit 12 that
7 guide?
8 A. It is.
9 Q. If you could turn to Page 9 of
10 the guide, there's a chart that starts
11 there -- actually, there's a table that
12 starts there and runs for a few pages, and
13 it's labeled "Table 2: The Twelve Steps of a
14 High-Quality Cost Estimating Process."
15 A. Yep.
16 Q. Do you see that?
17 A. Yep.
18 Q. Did your creation of the
19 abatement plan follow these steps for
20 creating a cost estimate?
21 A. I did not review these steps in
22 any detail. I was familiar with this guide
23 from my time in government.
24 Q. Okay. Well, let me direct you

1 to, for example, number 9, step 9.
2 Do you see that?
3 A. I do.
4 Q. In step 9, for example, is --
5 the description of it is "Conduct risk and
6 uncertainty analysis."
7 Do you see that?
8 A. Yes.
9 Q. Did you do that as part of your
10 abatement plan budgeting?
11 A. What I did is for the main
12 component that I think we don't know exactly
13 how the world is going to play out, I gave
14 you high and low estimates that vary
15 according to that, and that's a form of
16 sensitivity analysis.
17 Q. Okay. So if you go to step 8
18 above that, that's "Conduct sensitivity
19 analysis"?
20 A. Right.
21 Q. Do you see that? So that would
22 fall -- what you just described would fall
23 under step 8, correct?
24 A. Yeah, they're both techniques

1 for trying to communicate both what is
 2 unknown and how estimates would vary -- can
 3 vary in alternative states of the world.
 4 Q. Okay. But a sensitivity
 5 analysis, you'd agree with me, doesn't give a
 6 prediction of accuracy, correct?
 7 MR. KO: Object to the form.
 8 A. A sensitivity analysis
 9 sometimes is informed by one's assessment of
 10 what the likely range of an outcome is, and
 11 so sometimes it does incorporate some, I
 12 think, information about accuracy, but it's
 13 not the same as -- you know, for example, in
 14 here, if you have data on the probability
 15 distributions doing a Monte Carlo simulation,
 16 which is what they're talking about in number
 17 9.
 18 BY MR. MORRIS:
 19 Q. So the sensitivity analysis is
 20 something that measures how much of a change
 21 there might be to the output, such as the
 22 estimated cost if the inputs change. Have I
 23 got that right?
 24 A. Yes.

1 Q. But the sensitivity analysis
 2 isn't something that measures how accurate
 3 the assumed inputs are?
 4 MR. KO: Object to the form.
 5 BY MR. MORRIS:
 6 Q. Correct?
 7 MR. KO: Object to the form.
 8 A. The sensitivity analysis does
 9 exactly what you said. It takes different
 10 inputs and tells you how the results would
 11 change.
 12 BY MR. MORRIS:
 13 Q. Okay. You mentioned, or you
 14 referred to one of the bullet points in
 15 number 9 that reads "Use an acceptable
 16 statistical analysis method (e.g., Monte
 17 Carlo simulation) to develop a confidence
 18 interval around the point estimate."
 19 And that's something you didn't
 20 do here, correct?
 21 A. I did not do that here.
 22 Q. The next bullet point is
 23 "Identify the confidence level of the point
 24 estimate."

1 That's also something that you
 2 didn't do here, correct?
 3 A. That's correct.
 4 Q. Would you agree that that's a
 5 key step in a high quality budget?
 6 MS. RITTER: Objection to the
 7 form.
 8 A. One can only do Monte Carlo
 9 estimates when you have a probability
 10 distribution to use as the basis for them.
 11 And there are lots of problems where we don't
 12 have a data set to draw a probability
 13 distribution from, and that's why it's pretty
 14 uncommon to publish and do those kind of
 15 uncertainty analysis. You know, for example,
 16 when we were estimating the cost of the
 17 Affordable Care Act, we didn't do anything
 18 like this.
 19 And so you will occasionally
 20 see this done in budgeting, but it's not --
 21 you know, as I said in the very beginning of
 22 this discussion, it's the exception rather
 23 than the rule.
 24 BY MR. MORRIS:

1 Q. If you could turn to Page 153
 2 of Exhibit 12.
 3 A. That's the same exhibit we're
 4 in, right?
 5 Q. Yes. The GAO document.
 6 A. I lost track. Okay. You said
 7 153?
 8 Q. 153.
 9 A. Okay.
 10 Q. And this chapter is entitled
 11 "Cost Risk and Uncertainty."
 12 Do you see that?
 13 A. Mm-hmm.
 14 Q. Now if you could turn to the
 15 next page, 154, there's a section entitled
 16 "Point Estimates Alone Are Insufficient For
 17 Good Decisions."
 18 Do you see that?
 19 A. I do.
 20 Q. First, do you agree with that
 21 statement?
 22 A. I don't think I agree with that
 23 in general. I think most of the times that
 24 we were making decisions in government, the

1 best that we have is a point estimate, and
 2 so -- and we make decisions, important
 3 decisions based on that all the time, so I
 4 would not describe point estimates as
 5 insufficient.
 6 Q. If you could read the first
 7 sentence -- actually why don't you -- if you
 8 could read aloud the first sentence of right
 9 underneath that heading.
 10 A. "Since cost estimates are
 11 uncertain, making good predictions about how
 12 much funding a program needs to be successful
 13 is difficult."
 14 Q. Do you agree with that?
 15 A. I think it depends on what it
 16 is you're guesstimating. Some things are
 17 difficult to estimate and some aren't.
 18 Q. And the more complex the thing
 19 you're trying to estimate, the harder it is
 20 to predict, or to estimate?
 21 A. The more -- maybe the more
 22 unknown things are.
 23 Q. You'd agree with me that there
 24 are a significant number of unknowns in the

1 cost estimate that you created for the
 2 abatement plan, correct?
 3 MR. KO: Object to the form.
 4 A. I think we need to talk about
 5 particular components to get into that
 6 question.
 7 BY MR. MORRIS:
 8 Q. Okay. We'll come back to that
 9 then.
 10 If you could go to the third
 11 paragraph underneath "Point Estimates Alone
 12 Are Insufficient For Good Decisions," it
 13 starts with the sentence "Point estimates are
 14 more uncertain."
 15 Do you see that?
 16 A. Yes.
 17 Q. Can you read that sentence?
 18 A. "Point estimates are more
 19 uncertain at the beginning of a program,
 20 because less is known about its detailed
 21 requirements and opportunity for change is
 22 greater."
 23 Q. Do you agree with that?
 24 A. Yes.

1 Q. And then the next sentence,
 2 could you read that one, please?
 3 A. "In addition, early in a
 4 program's lifecycle, only general statements
 5 can be made."
 6 Q. Do you agree with that?
 7 A. I think it depends. That is
 8 too blanket a statement.
 9 Q. If you go to the next page on
 10 155, in the first full paragraph there, the
 11 last sentence begins, and I'll read this one,
 12 "Thus, a point estimate, by itself, provides
 13 no information about the underlying
 14 uncertainty other than that it is the value
 15 chosen as most likely."
 16 Do you see that?
 17 A. Yes.
 18 Q. Can you read the next sentence?
 19 A. "A confidence interval, in
 20 contrast, provides a range of possible costs,
 21 based on a specified probability level."
 22 Q. Okay. We've gone over that.
 23 That's something that is not part of your
 24 cost estimate for your abatement plan,

1 correct?
 2 A. I do not provide confidence
 3 intervals.
 4 Q. But that's another way of
 5 stating in the sentence here what a
 6 confidence interval does, right, gives a
 7 range and then states, based on a percentage,
 8 how confident the person doing the budget is
 9 in the ultimate -- what the ultimate costs
 10 will fall within that range?
 11 A. It gives you the probability
 12 distribution of the estimates.
 13 Q. Okay. If you go then to two
 14 more pages in, 157, the paragraph that
 15 begins, the first full paragraph there, "One
 16 way to determine."
 17 Do you see that?
 18 A. Yes.
 19 Q. Can you read that sentence?
 20 A. "One way to determine whether a
 21 program is realistically budgeted is to
 22 perform an uncertainty analysis, so that the
 23 probability associated with achieving its
 24 point estimate can be determined."

1 Q. Did you perform an uncertainty
2 analysis being described here in this
3 sentence for your abatement plan?
4 A. I just want to make sure I
5 understand what they're using uncertainty
6 analysis to mean here.
7 (Witness reviewing document.)
8 A. So I think -- I'm just reading
9 this section of this report so I'm not sure
10 if they defined uncertainty analysis
11 previously, but if what they are saying here
12 is that they did a Monte Carlo and out of the
13 Monte Carlo they created a cumulative
14 probability distribution, I did not do that
15 in my report.
16 Q. Okay. And the next sentence
17 there says, "A cumulative probability
18 distribution, more commonly known as an S
19 curve - usually derived from a simulation
20 such as Monte Carlo - can be particularly
21 useful in portraying the uncertainty
22 implications of various cost estimates."
23 And that -- you didn't run an S
24 curve?

1 A. You have to -- the S curve is
2 just a way of plotting the outcomes of a
3 Monte Carlo distribution. And as I said, I
4 did not do a Monte Carlo distribution.
5 Q. So is it fair that you're not
6 offering -- to say that you're not offering
7 an opinion as to how accurate your cost
8 estimates are?
9 MR. KO: Object to the form.
10 A. I think that I've produced
11 reasonable estimates, so I do think they are
12 accurate, and I am offering opinion that they
13 are accurate.
14 BY MR. MORRIS:
15 Q. And to what degree of certainty
16 are you opining that they're accurate?
17 A. I don't have a quantitative
18 measure of the degree of certainty.
19 Q. And you built into the plan a
20 continued re-evaluation of the plan over time
21 to try and track to see whether the costs go
22 up or down?
23 A. Yes, because whenever one
24 develops a complicated multi-year plan, you

1 want to -- this is what one does all the
2 time, and I do this at the GPL. When I've
3 done this in government, you want to devise
4 the best plan that you can devise today, and
5 you want to be in a world to improve it over
6 time as we learn more and as the world
7 unfolds.
8 Q. Do you know what a cost-benefit
9 analysis is?
10 A. Yes.
11 Q. And what is a cost-benefit
12 analysis?
13 A. It's an analysis where one
14 compares the costs of a program and the
15 benefits of a program.
16 Q. It's all in the name, right?
17 You didn't perform a
18 cost-benefit analysis as part of your work on
19 your opinion, did you?
20 A. No, I was not asked to do that.
21 Q. I want to talk a little more,
22 then, about what the \$5 billion estimate for
23 Cuyahoga and \$2.2 billion estimate for Summit
24 County represents.

1 First, am I correct, those are
2 the total estimated amounts for all of your
3 abatement plan costs for the two counties
4 added up over the 15-year period, correct?
5 A. Correct.
6 Q. And you estimated how much
7 money might have been spent in year 1 or
8 might be spent in year 2, 3, and down the
9 line, and that's what you've added up,
10 correct?
11 A. Yes.
12 Q. You're familiar with the
13 concept of the present value or net present
14 value of money?
15 A. Certainly.
16 Q. Can you explain it to me?
17 A. Sure. That if I offered you
18 \$100 a year from now, you would likely not be
19 willing to give me \$100 today because a
20 dollar today is -- most people prefer to a
21 dollar in the future.
22 Q. And that's because the concept
23 is to take into account that if you have a
24 dollar today it will grow into something more

1 in the future?

2 A. Yeah, I would say that people

3 have time preference. They prefer

4 consumption today to time in the future, and

5 because of that, the market has to pay one

6 rate of return to get you to give up money

7 today.

8 Q. And there's a calculation in

9 economics to -- that you can do to try and

10 determine the present value of a stream of

11 payments that go out into the future, is that

12 true?

13 A. Yes, absolutely.

14 Q. And did you do such a

15 calculation for your 15-year plan estimate?

16 A. I don't provide one, but it's

17 trivial. You can take the numbers in my

18 report and calculate one in three seconds if

19 you feel like it.

20 Q. Understood.

21 But the -- what I'm trying to

22 get at is the roughly \$7 billion of your

23 estimated abatement plan for the two counties

24 is not \$7 million of today money?

1 A. Right, they're in nominal

2 dollars, but I provide all the information.

3 If you would prefer to see that other

4 information, I followed the practice that,

5 for example, the Congressional Budget Office

6 does in doing annual calculations, and then

7 giving you the nominal sum. And I thought

8 that was the more standard way to present

9 that, but one can convert back and forth, I

10 mean, literally in seconds.

11 Q. Okay. But you didn't -- and I

12 get that, but that's not something you've

13 done?

14 A. No. But again, I've given all

15 the information you need if you wanted to

16 know that number.

17 Q. Understood. Because my next

18 question would be, do you know what that

19 number would be?

20 A. No, but one could -- again, one

21 could calculate that very fast.

22 Q. And that's a standard

23 calculation. It is readily applied by

24 economists and accountants?

1 A. It's -- you know, it's more

2 common, I would say, in benefit-cost analysis

3 than in budget documents, but sometimes

4 you'll see it in the budget documents. Like

5 the Social Security Administration when doing

6 its 75-year forecast will do it in a thing

7 that's more like in a budget document.

8 Q. Does your estimated cost for

9 the abatement plan take into account the fact

10 that counties may get some money from, for

11 example, the federal government specifically

12 earmarked for the type of activities within

13 your abatement plan?

14 A. So the scope of my assignment

15 was not to parse out who would be paying for

16 it. It was just to figure out what the needs

17 were in the community, what services needed

18 to be offered to address those needs, and

19 then what the costs of all of that was.

20 Q. Got it.

21 So just so I'm clear, so again

22 taking the total amount, estimated amount of

23 \$7 billion, that's the total amount of your

24 estimated cost, and if there's money that's

1 provided by the federal government, that

2 would go to that, but you haven't reduced

3 your \$7 billion estimate taking into account

4 money that the federal government may have

5 already given Cuyahoga County, for example?

6 MS. RITTER: Objection to form.

7 A. I give you the total costs, and

8 I'm not -- it was beyond the scope of what I

9 was asked to do to figure out who would pay

10 and what that would do.

11 BY MR. MORRIS:

12 Q. Fair enough. I'm really just

13 trying to figure out what's embedded or not

14 in the \$7 million.

15 So, for example, some of the

16 costs that you identified, and we'll go

17 through the details in a little bit, are

18 medical costs, and insurance companies

19 sometimes pay for those medical costs. You

20 didn't subtract out the amount that insurance

21 companies may be paying for those costs in

22 the future, correct?

23 A. Correct.

24 Q. What was the purpose in

1 providing an estimated cost for your
2 abatement plan?

3 A. I guess my understanding is
4 that in some of the theories of this case, an
5 estimated cost would be useful in figuring
6 out what the defendants would end up paying
7 in a way that would allow this problem to
8 actually get abated.

9 Q. Are you saying that there
10 should be a pot of money created that has 5
11 billion for Cuyahoga and roughly 2 billion
12 for -- 2.2 billion for Summit County,
13 respectively, now for them to draw upon?

14 A. I'm not giving an opinion on
15 that. I was asked to figure out what an
16 abatement plan would be and what it would
17 cost, and that's what I give you.

18 Q. As a matter of economics, it
19 wouldn't make sense to have a giant pot of
20 money with \$7.2 billion in it now for the
21 counties to draw down upon over the course of
22 15 years. You agree with me on that, right?

23 MR. KO: Object to the form.

24 A. I think there may be two

1 different things you're asking me.
2 Can you re-ask that.

3 BY MR. MORRIS:
4 Q. Sure.

5 As a matter of economics and
6 logic, it wouldn't make sense to have a pot
7 of money created now, create a bank account,
8 and deposit \$7.2 billion into it upon which
9 the counties would draw upon for the next
10 15 years to implement your abatement plan?

11 MR. KO: Same objection.

12 A. I think you have two different
13 things going on in this question. So one is
14 if I were asked to give policy advice on how
15 to set aside money so that you would be sure
16 it would still be there for the next
17 15 years, what kind of mechanism would one
18 use, and I have not thought about in this
19 question whether you'd want to have a pot of
20 money up front versus a flow coming in over
21 time.

22 But then you had a specific
23 number in there, and so I'm not sure whether
24 you were asking questions about whether if

1 you were putting money in an account like
2 that, whether it would be a different number.

3 MR. MR. MORRIS:
4 Q. Well, let me ask you this way.
5 Are you offering an opinion in
6 this case, or intending to offer an opinion
7 in this case about whether an abatement fund
8 should be created?

9 A. As I said, I don't have an
10 opinion on that. I created a abatement plan,
11 and how one uses that is up to others.

12 Q. Okay. If you could turn to
13 Paragraph 17. And right now I'm directing
14 your attention to the last sentence which
15 goes on to Page 7.

16 A. I'm sorry, I think I went to
17 Page 17.

18 Q. Oh, yeah, I'm sorry.
19 Paragraph 17.

20 A. Paragraph 17. Yes.

21 Q. Okay. And the last sentence of
22 that says, "My analysis does not address how
23 abatement costs should be shared among
24 various entities or parties."

1 We talked about that before,
2 correct?

3 A. Mm-hmm.

4 Q. You're not offering an opinion
5 about who should be paying for the estimated
6 abatement costs that you've calculated as
7 part of your opinion?

8 MS. RITTER: Objection to the
9 form. Asked and answered.

10 A. This sentence is right, my
11 analysis does not address how costs should be
12 shared.

13 BY MR. MORRIS:
14 Q. So no opinion about that
15 defendant A should pay a certain percentage
16 of abatement costs?

17 A. I have no opinion on that.

18 MR. MORRIS: Why don't we take
19 a break.

20 THE VIDEOGRAPHER: The time is
21 11:52 a.m., and we're off the record.
22 (Whereupon, a recess was
23 taken.)
24 THE VIDEOGRAPHER: The time is

1 12:07 p.m., and we're on the record.
 2 BY MR. MORRIS:
 3 Q. Okay. Dr. Liebman, I'm going
 4 to start going through some of the specific
 5 tables that you have in your abatement plan
 6 now. What's the -- and I'm going to ask
 7 questions about the things that are on the
 8 charts and whatnot.
 9 What do you think is the best
 10 version for me to walk through? Should we
 11 go -- and I understand if there's a question
 12 that needs to be turned to something else,
 13 that's fine. But should we -- do you think
 14 it's fair to start with the April 3rd report
 15 and use the tables, appendices that are
 16 there?
 17 A. Is that Exhibit --
 18 Q. That's Exhibit 6.
 19 A. -- 6?
 20 Q. That's what we've been working
 21 off of through the actual text of your
 22 report.
 23 A. So can you remind me again the
 24 difference between Exhibit 6 -- I'm sorry,

1 the report. Okay. The report -- okay. Yes,
 2 the report -- well, if we're going -- it
 3 depends -- if we're going to get into the
 4 details and the numbers, we will pretty
 5 quickly end up in exhibits, you know, in
 6 Exhibit 5, 7 and 8.
 7 Q. So why don't we do this. We'll
 8 start -- why don't you put in front of you
 9 Exhibit 6 and 7, which I think gets us most
 10 of the way there, except for the errata which
 11 we'll deal with when we get there.
 12 A. 6 and 7. Okay. We're good.
 13 Q. Okay. So now I'm going to --
 14 if you go to Table -- I'm going to start
 15 talking about Table 1, which also refers back
 16 to Table 0, but let me just ask some general
 17 questions about what is in Table 1 first.
 18 That's the first category of costs for
 19 treatment, excluding medication-assisted
 20 treatment, correct?
 21 A. We're talking about the first
 22 row in Table 1?
 23 Q. Yes.
 24 A. Yes.

1 Q. And that's the largest cost
 2 that you include in your abatement plan,
 3 correct?
 4 A. That's true, yes.
 5 Q. Okay. And by far that's the
 6 largest cost, correct?
 7 A. It's my -- or four or five
 8 times the next biggest one, so I guess, yes.
 9 Q. And roughly that combined is
 10 about \$4.3 billion, if I've done my math
 11 correctly?
 12 A. You just combined the two
 13 jurisdictions --
 14 Q. The two jurisdictions.
 15 A. I never do that in my head, but
 16 you said 3 plus 1.3 is 4.3. Good job.
 17 Q. And we've talked about this
 18 before, but these estimates you have, going
 19 forward in time, these are estimates for
 20 treatment of actual people, that actual
 21 people will receive --
 22 A. Yes.
 23 Q. -- in the future?
 24 And some of those people who

1 are treated will not have any connection to
 2 the defendants in this case, correct?
 3 MR. KO: Object to the form.
 4 A. I don't have an opinion on
 5 that.
 6 BY MR. MORRIS:
 7 Q. Now, the starting point for the
 8 number of people who you estimate might
 9 receive treatment, if I understand it
 10 correctly, is calculations that you've done
 11 on Table 0?
 12 A. That's right.
 13 Q. So let's go there.
 14 And just so I'm tracking, which
 15 exhibit are you looking at right now? Are
 16 you looking at 6 or 7?
 17 A. I am looking at 7.
 18 Q. Got it.
 19 A. I hope that I've done it up to
 20 this point.
 21 Q. Sorry. I'm going to organize
 22 myself here, just a second, for the
 23 questions.
 24 Okay. In -- let me know if

1 I've got this right. You have -- for each of
 2 the cost categories, you have a table, and
 3 you have a table that's labeled C, and a
 4 table that's labeled S that correspond to the
 5 two counties?
 6 A. Exactly.
 7 Q. Looking off of Table C.O, so
 8 Table 0 for Cuyahoga County, you start at the
 9 top with line item 1 of OUD rate.
 10 Do you see that?
 11 A. Yes.
 12 Q. Okay. Can you explain to me
 13 what that means?
 14 A. It is the percentage of the
 15 population in that county, age 12 or above,
 16 with opioid use disorder.
 17 Q. Okay. And for -- and the total
 18 estimate you have there is 1.4 percent?
 19 A. Yes.
 20 Q. And that then ties to the
 21 source notes below?
 22 A. Correct.
 23 Q. You get to the 1.4 by adding
 24 .77 percent for OUD prevalence and .63 HUD

1 prevalence?
 2 A. Correct.
 3 Q. So this is a situation where
 4 you are separating out the heroin use
 5 disorder?
 6 A. I wouldn't say I'm separating
 7 out. I'm combining the two numbers to get
 8 the totals of what I'm modeling.
 9 Q. Okay. But from your
 10 calculation, though, within footnote 1, OUD
 11 prevalence does not include HUD prevalence.
 12 A. So there's two different
 13 terminologies going on in the literature
 14 here. I'm taking these numbers from the
 15 Pitt, et al. study, and they use OUD to mean
 16 the non-HUD -- OUD, and so when I am adding
 17 their number, their two numbers, I refer to
 18 them the way they do, but in my study I use
 19 OUD to be the combined amount.
 20 Q. Let's take a look at the Pitt
 21 study. Let's pull that out as well. And
 22 that's Exhibit 12.
 23 MR. KO: The Pitt study is
 24 Exhibit 11.

1 MR. MORRIS: Oh, I'm sorry.
 2 Thank you. Exhibit 11.
 3 BY MR. MORRIS:
 4 Q. And you reference the -- well,
 5 let me ask you this way.
 6 Where does the .77 OUD
 7 prevalence come from?
 8 A. So there's a table of
 9 parameters at the end on, I guess it's
 10 page -- let's see where this is -- so this is
 11 in the appendix. I guess it's on page S.88.
 12 And if you look -- one, two, three -- four
 13 rows down you see the .77 number.
 14 Q. Okay. And the source for that,
 15 there's a column next to the value of .77,
 16 and the source column says "Assumed."
 17 Do you see that?
 18 A. Yes.
 19 Q. And then they -- the authors of
 20 this study cite to additional studies. Did
 21 you review those studies?
 22 A. Can I just remember which ones
 23 they cited to?
 24 Q. Sure.

1 A. But I assume this is the
 2 National Survey of Drug Use and Health, but I
 3 just want to double-check that I'm
 4 remembering that right. Do you know where
 5 their citations go to?
 6 MS. RITTER: For the .77, is
 7 that what you all are talking about?
 8 MR. MORRIS: Yes.
 9 BY MR. MORRIS:
 10 Q. I have the listing of the
 11 references starting, or including on S.106.
 12 A. Yeah, so I think they go under
 13 the CDC. I'm pretty sure that CDC number is
 14 -- originates in the National Survey of Drug
 15 Use and Health.
 16 Q. Did you review those citations
 17 that they cite to?
 18 A. Yes.
 19 Q. And is that .77 based on Ohio
 20 data?
 21 A. No, that's national data.
 22 Q. And when it says "Assumed,"
 23 what does that mean?
 24 A. I do not remember exactly what

1 that wording meant.

2 Q. Do you know what the ultimate

3 underlying source for the .77 percent was? I

4 know that it cites to -- the Pitt authors

5 cite to other articles. Do you know how they

6 calculated .77?

7 A. Again, I think the base input

8 here is the National Survey of Drug Use and

9 Health, which is a national representative

10 survey that is the most commonly used source

11 for figuring out what the prevalence of

12 opioid use disorder is.

13 But that study has some

14 limitations. In particular, it leaves out

15 homeless populations, incarcerated

16 populations, other institutionalized

17 populations, and it's also a survey. And

18 people often underreport substance abuse to

19 surveys, so for that reason they're making

20 adjustments, and I followed them in making

21 adjustments to that underlying data.

22 Q. The authors of the Pitt

23 article, they didn't do original research to

24 try and determine the severe opioid use

1 disorder prevalence, correct?

2 MR. KO: Object to the form.

3 BY MR. MORRIS:

4 Q. In other words, they were

5 getting their information from somewhere

6 else?

7 MR. KO: Object to the form.

8 A. They are -- they are citing the

9 standard source for this.

10 BY MR. MORRIS:

11 Q. Okay. We talked then about the

12 next step in your line item 1 there from the

13 source notes is adding .63 HUD prevalence.

14 A. Yep.

15 Q. How did you calculate that?

16 A. So they have an estimate for

17 the HUD prevalence, but they have decreased

18 it by 20 percent because they are only

19 studying the portion of opioid use -- sorry,

20 of heroin use that was preceded by

21 prescription opioid use. And so their number

22 is too low for my purpose, which is to cover

23 all opioid use. And so they have scaled

24 something down by -- they've taken 80 percent

1 of something, and so I have to take this .51

2 and divide it by .8 to get it back to the

3 population level.

4 Q. So they took out individuals

5 who in their estimation did not progress to

6 heroin use disorder after first having an

7 opioid prescription?

8 A. Exactly.

9 Q. And you attempted -- your

10 calculation is designed to add that back in?

11 A. Exactly.

12 Q. Isn't -- does the OUD

13 prevalence number not include that already?

14 A. No. And to be clear, the

15 heroin number comes from a RAND study which

16 is dealing with underreporting of heroin use,

17 so it's a slightly different set of

18 underlying data then, the pure opioid use

19 number.

20 Q. So that's from a different

21 source than the OUD number?

22 A. It's a -- yes, another source

23 that starts with the same original one, but

24 does some stuff to the numbers.

1 Q. Again, these are national data

2 calculations, assumptions, not specific to

3 Ohio?

4 MR. KO: Object to the form.

5 BY MR. MORRIS:

6 Q. Or these two counties?

7 MR. KO: Object to the form.

8 A. This paper, the Pitt, et al.

9 one, is modeling the opioid crisis at the

10 national level and is using national data.

11 BY MR. MORRIS:

12 Q. Do you know what the confidence

13 level is in the estimates that are reflected

14 in .77 OU prevalence? For example, do you

15 know what the authors of those studies stated

16 about that?

17 MR. KO: Object to the form.

18 A. So I think if you're asking me

19 to draw probability distribution of OUD, the

20 way I'm defining it, broadly defined, you

21 would need to incorporate two different

22 components. One is the sampling error

23 because the underlying -- this data was a

24 finite sample and not the whole population,

1 and that would give you -- you know, it's a
2 pretty large sample so it would give you a
3 pretty tight confidence interval, but then
4 there's a question of how well this is
5 measuring things.

6 And there's some recent
7 studies, for example, one from Massachusetts
8 that suggests that the survey approaches
9 significantly understate the amount of opiate
10 use disorder. The Massachusetts study found
11 that the prevalence was 4.6 percent.

12 I decided to stick with the
13 more conventional estimate because I don't
14 think the scientific opinion has moved all
15 the way toward these higher level estimates.
16 But there definitely is, I think, some
17 discussion going on among the experts that
18 the numbers that you got, as to like that the
19 one that Pitt uses and that I adopt, could be
20 significantly too low, and then if that were
21 the case, my estimates of the treatment needs
22 would need to be quite a bit higher.

23 BY MR. MORRIS:

24 Q. You then calculate an estimated

1 OUD population year 1 on line 3. Do you see
2 that? Is that just applying 1.4 percent to
3 the Cuyahoga population?

4 A. To the 12 and over population.

5 Q. 12 and over.

6 Okay. The next line down,
7 "Percentage of OUD population receiving
8 treatment."

9 Do you see that?

10 A. Mm-hmm.

11 Q. How did you arrive at that?

12 A. Sorry, let me just get away
13 from the Pitt study and into the right tables
14 again.

15 Okay. So the specific numbers
16 I take are based on what Dr. Lembke thinks is
17 possible to achieve, but a general number in
18 that range is supported by a wide range.
19 This is actually the initial number. I'm
20 sorry. I was trying to give you the answer
21 about the whole trajectory.

22 This initial number comes from
23 estimates that the -- which paper was it --
24 that SAMSA has done that only about

1 20 percent of the population with OUD get
2 treatment.

3 Q. In your cost estimate going
4 forward -- one, two, three -- four years,
5 going forward you'd anticipate, right, that
6 if an abatement plan were implemented that
7 you'd be able to replace assumed numbers or
8 estimated numbers with actual treatment
9 numbers?

10 MR. KO: Object to the form.

11 A. We would be able to measure --
12 one in theory could try to measure the number
13 of people being treated. That is challenging
14 because you have private facilities and
15 publicly funded facilities, and somehow one
16 would actually have to make that data exist
17 to get total treatment.

18 But one of the reasons to set
19 up the data capacity in this plan is that
20 tracking that right now is difficult, but we
21 would want to be able to do that going
22 forward.

23 BY MR. MORRIS:

24 Q. So you don't know -- you

1 couldn't, for example, today say within
2 Cuyahoga, for example, how many people
3 received, within the OUD population, received
4 treatment?

5 A. Well, in coming up with this
6 number, I not only looked at the national
7 estimates and talked to national experts, but
8 I also talked to providers on the ground and
9 the ADAMHS Board, and my judgment in using
10 this number comes from both national data and
11 from local perspective on how they think
12 they're doing in treating people.

13 Q. I get that. What you were
14 saying is going forward you'd need somebody
15 to try and help figure out the actual numbers
16 because that kind of data set doesn't exist.
17 And that's true for Cuyahoga and Summit
18 County, correct?

19 A. I have certainly not been
20 provided with such data. Whether someone is
21 better at getting claims data than I am, I
22 don't know.

23 Q. Okay. You used the same -- if
24 you go from your Table 0 to looking at Table

1 C.1, you use the same assumed prevalence rate
2 from year 1 all the way through year 15,
3 correct?

4 A. No. I don't make any
5 assumptions on prevalence going forward. I
6 make assumptions about treatment capacity.

7 Q. Well, you're -- let me walk
8 through this.

9 Your number of people estimated
10 OUD population receiving treatment in year 1
11 is based on applying the OUD rate against the
12 population, and then multiplying that against
13 the estimated percentage of population
14 receiving treatment, correct?

15 A. In year 1.

16 Q. In year 1?

17 A. Yeah.

18 Q. Okay. And your year 2 takes
19 that number and does what?

20 A. So I have phase-in up to a
21 higher percentage of people getting treatment
22 such that the treatment capacity doubles by
23 the -- so if you look at the table, you'll
24 see that the year 1 treatment capacity in

1 Cuyahoga -- sorry, the population receiving
2 treatment is 3,033, and by year 4 it's 6,067,
3 so that's doubling. That is a statement
4 about treatment capacity. It's not -- I'm
5 not making any forecasts about prevalence
6 going forward.

7 Q. So I'm understanding this,
8 let's just go to year 4, which is where
9 you've actually gotten to the point of the
10 estimate doubling. You're not -- that 6,067,
11 and I'm looking at Page 7 now, 6,067 is not
12 your estimate of how many people will receive
13 treatment in year 4?

14 A. Oh, it is an estimate of how
15 many people will receive treatment, but it's
16 not based on an estimate in that year of
17 prevalence. It's based on taking the initial
18 year treatment capacity and getting to double
19 of that.

20 Q. Okay. But the initial year is
21 based on the prevalence rate, correct?

22 A. Yes.

23 Q. And then what you've done to
24 get to year 4 is double that, correct?

1 A. I doubled the capacity, but I
2 don't have some underlying projection, for
3 example, of how the population in the county
4 is changing or anything like that. I'm
5 doubling capacity for treatment.

6 Q. Okay. I'm really not trying to
7 be obtuse here. Doubling capacity to me
8 means that that's what the system could
9 tolerate, not this is how many people I'm
10 predicting will be receiving treatment, at
11 least within the base case. Am I missing
12 something?

13 MS. RITTER: Objection to form.

14 A. Is the -- I guess --

15 BY MR. MORRIS:

16 Q. We're talking --

17 A. Why don't you ask again.

18 Q. Let me ask again. Let me ask
19 again, although I'm enjoying the
20 conversation.

21 Your first year estimate is
22 based on a prevalence rate?

23 A. Yes.

24 Q. And the only thing you've done

1 to try and predict how many people will
2 receive treatment in year 4 is to double
3 that?

4 A. So I'm not trying to predict
5 treatment. I'm trying to devise an abatement
6 plan. So the question is if we're trying to
7 be as aggressive as we can in treating this
8 crisis, what additional capacity do we need.
9 And based on my being -- the literature and
10 the expert opinion of Dr. Lembke, I have come
11 to the conclusion that we can double
12 treatment, and that we should double
13 treatment capacity, and then maintain that
14 doubled capacity through the end of the
15 15-year period.

16 Q. Okay. This is where I'm
17 getting to now. Are you saying -- because
18 what you're ultimately doing for each one of
19 these line items is giving an estimate as to
20 how much it will cost, correct?

21 A. Mm-hmm.

22 Q. Is that a prediction of how
23 much you think it is going to cost, or how
24 much it could cost?

1 MS. RITTER: Objection to the
2 form.
3 A. I am saying that if we're going
4 to make as much progress as we can on the
5 opioid crisis in Cuyahoga, we should double
6 the treatment capacity, and I am then telling
7 you how much it will cost to double that
8 capacity and maintain that doubled capacity.
9 BY MR. MORRIS:
10 Q. Are you offering an opinion
11 that in your estimation the number of people
12 who will receive treatment in year 4 will be
13 6,067 individuals in the Cuyahoga chart?
14 A. We will create the capacity to
15 treat that many people, and I certainly hope
16 all the slots would be filled. You know,
17 maybe we only keep 98 percent of slots
18 filled. But I'm not trying to parse that
19 issue.
20 Q. Are you rendering an opinion
21 about how many people actually will receive
22 treatment in, for example, year 4?
23 A. I am rendering an opinion that
24 the abatement plan that is needed in these

1 communities is to provide the capacity to
2 treat twice as many people.
3 Q. So is that a no, you're not
4 offering an opinion that -- about the number
5 of people who will receive treatment in year
6 4?
7 MR. KO: Objection. Asked and
8 answered.
9 BY MR. MORRIS:
10 Q. I certainly asked it. I'm not
11 sure he's answered it.
12 MR. KO: He's answered it in
13 the way that he truthfully believes he
14 can respond to your question.
15 A. The abatement plan is designed
16 to double capacity, and I -- my experience
17 has been that in these kind of programs, one
18 keeps them filled, so then the capacity and
19 the number of people served tends to be
20 pretty close as a number.
21 BY MR. MORRIS:
22 Q. In Table C.1 at the line 12,
23 you have a base case there, and it's north of
24 approximately \$3 billion, correct?

1 A. In Cuyahoga, yes.
2 Q. In Cuyahoga.
3 A. Yes.
4 Q. Is that -- are you rendering an
5 opinion that that is your estimate as to how
6 much it will cost over 15 years to implement
7 your abatement plan?
8 A. That's a component of it, yes.
9 Q. And as part of that component,
10 that component is built of subcomponents that
11 includes the number of people who are treated
12 each of the years, correct?
13 A. Yes.
14 Q. So in order to reach a
15 conclusion or render an opinion that
16 \$3 billion or so is the estimated cost,
17 aren't you opining that the number of people
18 that you've identified in each year will
19 actually receive treatment?
20 A. I'm trying to figure out -- are
21 we just having a disagreement about whether
22 when you have a facility with ten beds, all
23 ten beds are always filled? Is that the
24 question you're trying to ask me? Or whether

1 that -- I'm not understanding your question.
2 Q. Okay. Let me ask it this way.
3 In year 4, for example, the
4 6,067, is that the cost of actually treating
5 -- sorry, that's not a cost. Those people
6 are actually treated, or in your parlance,
7 the number of beds available for people to be
8 treated?
9 MR. KO: Object to the form.
10 A. I'm not trying to draw a
11 distinction here. I am saying that we're
12 going to have capacity to treat this many
13 people. There are fixed costs in delivering
14 these kind of services. So if a bed is empty
15 for a day, you don't suddenly save, say you
16 have ten beds, one-tenth of your cost for
17 that day because you've still got your staff,
18 still got your electricity, everything else.
19 And so I feel like we're having a back and
20 forth about a hundredth of a number. I'm not
21 sure why we're...
22 BY MR. MORRIS:
23 Q. Okay. Let me ask it -- let me
24 ask this.

1 The cost of actually treating
2 somebody versus the cost of having the
3 capacity to treat somebody are different
4 costs, correct?

5 A. If you have a -- if you have
6 two programs, let's suppose you have two
7 programs on separate sites. They each can
8 treat ten people. If you have this program
9 over here empty and you can shut it down and
10 this program over here full, you suddenly
11 save half your costs. If you've got two
12 programs going and they've each got five
13 people in them, you don't save half your
14 costs. So there are a lot of fixed costs in
15 running these kind of programs. And so the
16 point is I'm assuming that we need this
17 capacity, and I am assuming that treatment
18 levels are going to be very close to the
19 total capacity.

20 Q. Because in line 4 you say the
21 average cost of treatment provided, and you
22 give a number there to start out with as
23 24,023 per person, correct?

24 A. Yes.

1 Q. Okay. And that's the average
2 cost of actual treatment of people?

3 A. We're again going back and
4 forth on the fixed cost, marginal cost thing
5 here. So suppose you have a treatment
6 facility with ten beds, and nine of them are
7 filled the whole year and you never fill that
8 tenth bed, but you've had some costs because
9 it exists and you had more space, that would
10 probably get built into the cost on the --
11 you know, if you're sort of thinking about
12 the reimbursement on the nine.

13 So I just -- I don't think -- I
14 don't know why we're going back and forth on
15 something that I don't think is a meaningful
16 distinction here, at least not in the way I'm
17 understanding your question.

18 Q. Do you have an estimate as to
19 how many people who, when you say that
20 there's a capacity to treat 6,000 --
21 estimated 6,067 people, do you have an
22 estimate as to how many people will actually
23 receive treatment?

24 MR. KO: Object to the form.

1 A. I think I answered that before.
2 My presumption is that those numbers are
3 going to be approximately the same.

4 BY MR. MORRIS:

5 Q. Okay. If you go across the
6 time here, you've calculated -- well, let's
7 go back then to the -- what got us down this
8 road.

9 I'd asked whether the
10 1.4 percent OUD rate is applied across all of
11 the years. That's the basis -- that's one of
12 the underlying bases for the calculation for
13 each of the years going forward, correct?

14 A. No, no. My assumption is that
15 we figure out what today's capacity is from
16 the 1.4.

17 Q. Yes.

18 A. That based on what I have
19 learned from studying the literature and
20 talking to experts, including local experts,
21 that we need to double that capacity, and
22 that after we build up that capacity, and a
23 capacity that I assume will mostly be filled,
24 that we will need to maintain that capacity

1 because the number of people who need to be
2 treated in the community will be maintained
3 at that level.

4 But I'm not going back and
5 doing the 1.4 again later in any kind of --
6 I'm not making any projection about future
7 OUD in future years in this table or anywhere
8 in the report.

9 Q. Okay. So if you go to line 2
10 and you go across, once you reach year 4 on
11 the Cuyahoga chart in the base case, the
12 population receiving treatment is that number
13 we've been talking about, 6,067, and it goes
14 forward and remains constant through year 15.
15 If the abatement program is working, wouldn't
16 you assume that the number of people needing
17 treatment would reduce?

18 A. Unfortunately not, because
19 what's going on with the opioid epidemic is
20 that once someone has been addicted, had OUD,
21 that sticks with them for their lifetime.
22 They may not be active OUD at the point, they
23 may still be in treatment, they may be
24 relapsing. And so the opinion of the medical

1 experts that I've relied on is that even as
 2 we may reduce the new flow of people into OUD
 3 through various things that are in the other
 4 components of the plan, the prevention
 5 aspects, because the stock of people who have
 6 ever had OUD is constantly rising, and some
 7 of those people are relapsing and needing
 8 more treatment, that we're going to need the
 9 sustained level of capacity going forward.
 10 So that's what my assumption is based upon.
 11 Q. You apply the same cost of
 12 treatment with an inflation rate across time,
 13 though, correct?
 14 MR. KO: Object to the form.
 15 A. No, that's true, yes.
 16 BY MR. MORRIS:
 17 Q. Is the nature of the people who
 18 are in the 6,067 number in year 13, for
 19 example, the nature of their need for
 20 treatment the same as in year 2, if once --
 21 assuming the abatement plan has been put into
 22 place?
 23 A. I didn't have any information
 24 to assume a different distribution of

1 treatment needs for the people who are
 2 relapsing or who are getting longer term
 3 treatment, so I assume the same distribution.
 4 Q. Is there a measurement of
 5 success of the abatement program that is
 6 reflected in the estimates for the number of
 7 people who are going to be treated?
 8 A. I have not made any projections
 9 about outcomes here. All I've simply done is
 10 followed the guidance of the literature, I've
 11 consulted the experts I've consulted that we
 12 need to ramp up capacity and maintain that
 13 capacity for at least 15 years.
 14 Q. So who are you relying on for
 15 the concept or the idea that the number of
 16 people potentially receiving treatment in
 17 year 12 should be the same as those in year
 18 5, and that the cost applied to that
 19 treatment should be the same?
 20 MR. KO: Object to the form.
 21 A. Can you break that question up?
 22 You had two different --
 23 BY MR. MORRIS:
 24 Q. Sure.

1 A. -- and in the middle there.
 2 Q. Who are you relying on for the
 3 proposition that the number of people in year
 4 12 as receiving treatment would be the same
 5 as the number of people in year 5?
 6 A. So Dr. Lembke's report
 7 specifically says that we need to ramp up
 8 treatment and maintain it for the extended
 9 period of time.
 10 Q. Okay. Are you referring to
 11 Dr. Lembke's assertion about percentage of
 12 individual people could go from 20 percent to
 13 40 percent? Is that what you're referring
 14 to?
 15 MR. KO: Object to the form.
 16 BY MR. MORRIS:
 17 Q. I'll bring out the report. I
 18 just want to know -- I want to get you to the
 19 right portion of the report.
 20 A. So that --
 21 MR. KO: Hold on. Is there a
 22 question?
 23 MR. MORRIS: It was a
 24 follow-up. But let me ask it this

1 way. That's a good point.
 2 BY MR. MORRIS:
 3 Q. Let me first do this.
 4 Can you go to your report at
 5 Paragraph 42, Exhibit 6? If you could read
 6 the second and third sentences of
 7 Paragraph 42, please.
 8 A. "The cost estimates anticipate
 9 that the number of individuals that receive
 10 treatment will ramp up over four years such
 11 that the number of individuals receiving
 12 treatment for OUD will double between 2020
 13 and 2023."
 14 Q. Okay. And then the next
 15 sentence?
 16 A. "I understand that the Expert
 17 Report of Anna Lembke explains then an
 18 effective Abatement Plan could expand its
 19 reach in this way by 2024."
 20 Q. Okay. And you say there that
 21 you understand that her report says that.
 22 Have you read her report?
 23 A. I have.
 24

1 (Whereupon, Liebman Exhibit
2 Number 13 was marked for
3 identification.)
4 MR. KO: Sean, up to you, but
5 maybe after this round of questioning
6 we can have lunch?
7 MR. MORRIS: Yeah, that was my
8 plan. I'm going to tie this off and
9 then we can go to lunch.
10 BY MR. MORRIS:
11 Q. If you go to Page 96, please.
12 If you look at Paragraph 17.
13 A. Yes.
14 Q. And she writes in 17, "With an
15 aggressive infusion of resources and efforts
16 in Summit and Cuyahoga Counties, it would be
17 reasonable that within four years the number
18 of bellwether individuals with OUD who
19 receive substance abuse treatment services
20 within a year could double, assuming that
21 only 20 percent of individuals with OUD
22 currently receive treatment."
23 Do you see that?
24 A. I do.

1 Q. Okay. Is that what you were
2 referring to as what you're relying on for
3 the doubling of the potential treatment of
4 individuals?
5 A. That's one place. There may be
6 a couple other places where this comes up in
7 this report, but yes. Yes, I think that's
8 the right place.
9 Q. And there she does not cite to
10 any sources, correct?
11 A. That's right. I want to
12 emphasize, though, that the specific numbers
13 I take from Lembke, but there are other
14 sources that I've drawn upon in forming my
15 opinion that we can achieve, and that this is
16 the right level of treatment to be targeting
17 in this abatement plan.
18 Q. There are other sources that
19 talk about doubling the people who will
20 receive treatment within Summit and Cuyahoga?
21 A. That it would be possible that
22 one can achieve -- that increases in the
23 number of people who receive treatment if one
24 implements an effective plan.

1 Q. Okay. Do you have any
2 empirical reason to believe that?
3 A. Well, if you look, for example,
4 in Vermont which has, I think, one of the
5 most aggressive efforts, they were able to
6 achieve when they undertook that plan
7 increases in the percentage of people who
8 were receiving treatment that I think were
9 higher than doubling.
10 Q. And where is that located?
11 Where is that information located?
12 A. Can we go to the -- actually we
13 can get it out of -- if we go to my report
14 and go to -- this is going to be like 24 or
15 25. Let's see if I can find it.
16 I think that may be in the
17 Brooklyn and Sigmon article cited in footnote
18 24, although there were other Vermont papers
19 that I read, so, I'm not 100 percent sure
20 that that was the one I'm thinking of.
21 Q. Did you put a numerical
22 estimate as to how confident you are in the
23 number of people who will receive treatment
24 in year 11, let's say?

1 A. So that's the area where I did
2 do sensitivity analysis because I wanted to
3 show how the results can change depending on
4 if the world turned out in different ways.
5 Q. Right. So we talked about
6 that, though.
7 The sensitivity analysis is if
8 the inputs change, how much will they change
9 for any given line item, right?
10 A. That's correct.
11 Q. That's not an estimate of how
12 competent one is in the prediction of the
13 output number, correct?
14 MR. KO: Object to the form.
15 A. That's correct.
16 MR. MORRIS: Okay. Why don't
17 we take a break for lunch.
18 THE VIDEOGRAPHER: The time is
19 12:52 p.m., and we're off the record.
20 (Whereupon, a luncheon recess
21 was taken.)
22
23
24

1 AFTERNOON SESSION

2

3 THE VIDEOGRAPHER: The time is

4 1:48 p.m., and we're on the record.

5 BY MR. MORRIS:

6 Q. Okay. Dr. Liebman, you realize

7 you're still under oath?

8 A. Yes.

9 Q. Has anything that we've talked

10 about during the morning session caused you

11 to change any of the opinions in your report?

12 A. No.

13 Q. Before we went on break we were

14 talking about the estimated increase in the

15 number of people receiving services over

16 time, and we talked about Anna Lembke's

17 expert report that you cite in your report.

18 And then when I asked you

19 whether there's any other bases for that

20 assumption in your opinion, you mentioned a

21 Vermont article.

22 Do you remember anything more

23 about the Vermont article? Do you remember

24 what it was entitled?

1 A. I can look up the title. I

2 think we read it before.

3 Q. Okay. I'm sorry, you're right,

4 you pointed that out to me. Let me ask it

5 this way.

6 Is there anything other than

7 the Lembke report and the Vermont article

8 that you're basing the increase from 20 to

9 40 percent?

10 MR. KO: Object to the form.

11 A. I'd say the general view that

12 it is possible to greatly increase the

13 percentage of people in treatment comes from

14 a much broader set of sources, including the

15 federal government's strategies around --

16 recommended strategies around combatting the

17 opioid crisis, the SAMSA reports, the CD

18 reports that are recommending strategies, all

19 those contemplated a much higher level of

20 treatment than we're currently doing.

21 And my other conversations with

22 medical experts like Dr. Alexander and with

23 local physicians on the ground in the two

24 bellwethers all contributed to me believing

1 that this was a reasonable assumption.

2 THE VIDEOGRAPHER: Can we go

3 off for a second?

4 The time is 1:50 p.m., and

5 we're off the record.

6 (Pause.)

7 THE VIDEOGRAPHER: The time is

8 1:52 p.m., and we're on the record.

9 BY MR. MORRIS:

10 Q. These other sources that you're

11 referring to, do they predict a doubling of

12 the number of people who could receive

13 treatment?

14 MR. KO: Object to the form.

15 A. Some of the conversations with

16 other medical experts, in some of those

17 conversations I was able to confirm that they

18 thought that was a reasonable assumption for

19 me to be making.

20 BY MR. MORRIS:

21 Q. And which of the medical

22 experts are you referring to?

23 A. I'm thinking particularly

24 Dr. Parran in Cuyahoga.

1 Q. And do you know what he was

2 basing his agreement with you about doubling

3 the number of people who could receive

4 treatment, what he was basing that on?

5 A. My impression, based on his

6 expertise in treating people and designing

7 the systems and treating people in the

8 community.

9 Q. You don't know whether he had

10 any empirical analysis to back up his

11 agreement with you?

12 A. I don't know.

13 Q. So keeping on Table 1 and using

14 Cuyahoga as the example while we're looking

15 at year 1 where there's 3,033 people listed

16 in the population receiving treatment on the

17 base case, and then increasing to 6,067 in

18 your report moving forward, you mentioned in

19 one of your answers before people moving in,

20 people moving out of that number. Is it the

21 same cohort of people year-over-year that are

22 in that category?

23 MR. KO: Object to the form.

24 A. What category?

1 BY MR. MORRIS:

2 Q. So when you're listing the

3 people who -- in the population receiving

4 treatment, and in year 5 it's 6,067 and in

5 year 6 it's 6,067, it's not the same

6 6,067 people between year 5 and year 6, is

7 that right?

8 MS. RITTER: Objection to form.

9 A. Some of the individuals

10 overlap, but some will be different.

11 BY MR. MORRIS:

12 Q. And have you done any

13 calculation as to how many will overlap and

14 how many will be different?

15 A. I don't specifically model that

16 because I'm not fundamentally modeling the

17 people. I'm modeling that needed treatment

18 capacity.

19 Q. Okay. Again, I really don't

20 want to beat a dead horse on this one, but

21 you say modeling the treatment capacity. But

22 the line item is titled "Population Receiving

23 Treatment," it's not capacity to receive

24 treatment, correct?

1 A. I guess the point I'm making is

2 that I'm not using a compartment model of

3 people flowing through states of the world.

4 I'm doing a budget projection of what it

5 would cost to be able to treat this many

6 people and what it would cost to treat that

7 many people over time.

8 Q. Moving to the line item of

9 average cost of treatment provided, and you

10 have the estimate there of 24,023 per person

11 on the Cuyahoga chart, and I guess it's the

12 same on the Summit County chart. How did you

13 calculate that?

14 A. There was a -- the best study

15 that I am aware of, of treatment costs, was a

16 study that was done of facilities in Florida

17 where they were able to collect data on a

18 wide range of facilities of each type, and so

19 I started with those numbers, and then I

20 spoke to people in the bellwethers who were

21 delivering similar services to confirm that

22 the numbers I'd gotten from the Florida study

23 were similar to what kind of fees were being

24 paid in Cuyahoga and in Summit.

1 Q. And who did you speak to about

2 the Florida estimates to determine whether

3 they were applicable to the northern Ohio

4 counties?

5 A. People at the two ADAMHS boards

6 which are the entities that fund a lot of

7 those services.

8 Q. Okay. And did they do any

9 calculations, or did they just kind of give

10 you their opinion about that seems about

11 right?

12 MR. KO: Object to the form.

13 A. For some of these services,

14 they knew the exact daily rates, and I can

15 multiply them by 365 to compare them with the

16 numbers I was using, and then verify that we

17 were in the right -- you know, that these

18 things were similar.

19 BY MR. MORRIS:

20 Q. And the backup for the number,

21 the average cost of treatment provided is in

22 one of the further spreadsheets, is that

23 right?

24 A. That's right.

1 Q. Okay. And if we're working off

2 of the same Exhibit 7, if you go to Page 61,

3 is that the backup that goes into the

4 starting point of \$24,023 per person for the

5 average cost of treatment?

6 A. Yes.

7 Q. What are the items on the left

8 that are describing look like to be treatment

9 things, where did those come from?

10 A. If you look at the Society of

11 Addiction Medicine guidelines around the

12 range of treatment that they recommend the

13 community have, these are the -- these come

14 from there and from -- I mean, it's one of

15 those things where there's remarkable

16 consensus, so I can point you to other places

17 that would say the same thing.

18 Q. Okay. And so for adult

19 outpatient, what does that encompass? What

20 kind of cost does that encompass?

21 A. So outpatient in this context

22 means someone who is coming to get services

23 that could be, for example, therapeutic

24 services. I think the technical definition

1 is that intensive outpatient starts at nine
2 hours a week or more, and so adult outpatient
3 would be services that are less than that
4 amount of services a week.

5 Q. I see.

6 So that's distinguished from
7 the next line item, the intensive outpatient
8 is nine hours plus?

9 A. Nine hours plus.

10 Q. How did -- so can you walk me
11 through how the adult outpatient line item
12 then rolls into a -- the cost per individual?

13 A. Do you want me to sort of take
14 you through each column or give you the --

15 Q. Yeah, actually I'm confused
16 about how -- what gets multiplied against
17 what or applied against what.

18 A. Okay. So in the first column
19 we have 3,874, which was the median cost for
20 adult outpatient in the Florida study. And
21 in the second column, you have the mean,
22 which was 27,359. In theory, the mean is the
23 better concept because if you have outliers
24 that's part of the cost and you'd want to

1 include that. But some of the folks who are
2 high cost are getting treatment for more than
3 a year, and I'm doing an annual number, and
4 so the mean is too high because it includes
5 some of the things that go beyond 12 months
6 of treatment. The median, on the other hand,
7 is too low because it misses the right tail
8 of the distribution that's picked up in the
9 mean. So what happens in column 3 and column
10 4 was simply adjust for inflation.

11 Then in column 5 we assume that
12 many people before they go into therapy have
13 to go through deep detox, 50 percent of them
14 do, and so we add to column 3 and 4 the detox
15 cost. And so then we have these two numbers.
16 And then on top of that some people don't
17 just need the therapeutic services, they need
18 somewhere to live while they're getting
19 treatment, and that number is -- we assume is
20 30 percent. I assume it's 30 percent here.
21 And so then you see the total cost
22 including -- you see the total cost including
23 the therapy, the detox if they got it, the
24 housing if they got it. And you see that in

1 2018 dollars for both the mean and the
2 median.

3 And then because the median is
4 almost certainly too low and the mean is
5 almost certainly too high, we want to get
6 something in the middle, so I take the mean
7 of those two, and then I do that same thing
8 for each of the four rows, and then I take a
9 weighted average of those because people
10 might be getting different -- to represent
11 the different kinds of treatment that people
12 are getting, and that results in the bottom
13 right cell.

14 Q. That methodology of taking a
15 weighted approach to the mean and the median,
16 is that something that was in, then, in the
17 Florida study, or was that something that you
18 did for purposes here?

19 A. Their numbers didn't give me
20 the exact number I wanted, which was the
21 annual mean, and so I know it has to be
22 between the median and the mean. And for
23 simplicity I took the midpoint to get the
24 best estimate I could given the data that was

1 available.

2 Q. And was that decision to take
3 the midpoint between the median and the mean
4 based on a -- based on something, or just
5 that was what you felt was the right answer?

6 MR. KO: Object to the form.

7 A. I had -- yeah, I had to use my
8 judgment given that we didn't have the
9 perfect data to get us a number that would be
10 reasonable for the use I was putting it to.

11 BY MR. MORRIS:

12 Q. On my sheet, the partial
13 hospitalization line, do you see that?

14 A. Yes.

15 Q. There's a shading there. Do
16 you know why that's shaded? I'll represent
17 to you that was the way it was in the Excel
18 spreadsheet. I didn't know if that had some
19 meaning.

20 A. Certainly doesn't have any
21 meaning to me right now.

22 Q. Okay. The line items that are
23 listed here, the adult outpatient, intensive
24 outpatient, partial hospitalization, adult

1 residential, detoxification, do those include
2 fixed costs?

3 A. The nice thing about the
4 Florida study, which is why I base my results
5 on the Florida study and then confirm them
6 locally rather than just taking local fees,
7 is that it was a properly done economic cost
8 analysis that, for example, included ongoing
9 maintenance costs for the facility and things
10 that might, you know, be offering
11 depreciation of the facility and things like
12 that that you actually have to pay, but
13 sometimes government payers don't pay the
14 full average cost of services. So because it
15 was the most careful methodology, it was
16 thinking hard about what the full cost was,
17 that's why I relied on that one.

18 Q. Would it be possible to do a
19 study like that with respect to using actual
20 Cuyahoga and Summit data?

21 MR. KO: Object to the form.

22 A. If one had probably a year to
23 do it, one could. The reason it's
24 challenging is that they're not just

1 non-profits funded by the ADAMHS boards,
2 they're all the private providers also that
3 -- the folk, the government folks who I
4 couldn't get data for didn't have access to
5 their numbers, and so one would have go to --
6 one would have to get a census of the
7 different kinds of providers in the community
8 to administer a survey like the one that the
9 Florida team did, and get them to report data
10 that's different than what they probably are
11 normally reporting in their -- you know,
12 you'd have to get them to do -- each of the
13 providers to do some work to do this, so it
14 would be -- I mean, there's a reason, as far
15 as I know, this has only been done well in
16 one state. It's not a trivial study.

17 BY MR. MORRIS:

18 Q. If you go back then to the
19 actual Table 1. Hold on one second, excuse
20 me. Okay. Going back to Table 1 then and
21 using the Cuyahoga C.1 as the example, if
22 looking at just year 1, if the estimate of
23 the number of people receiving treatment is
24 off by just ten people, does that mean that

1 the -- there's a difference of \$250,000?

2 A. Yes.

3 Q. And again, just straight math,
4 if the estimate is off by 100, then there's a
5 difference of \$2.5 million?

6 A. I didn't, yeah, the math --

7 Q. Sorry.

8 A. I will presume you did the math
9 right, but I didn't listen to your numbers.

10 Q. Don't presume. I went from 10
11 to 100. And the 10 was 50,000 and the 100
12 gets you to 2.5 million.

13 A. Okay. Yes.

14 Q. And the spread gets higher the
15 longer you go into the years, correct,
16 because the number -- the average cost of
17 treatment gets higher? You're off by that
18 same ten, the -- you're off by the same 100,
19 the actual difference or the spread is closer
20 to 4.5 million by the time you get to year
21 15, correct?

22 MR. KO: Objection. Form.

23 A. I -- your question had several
24 parts to it. On the question of whether the

1 number, the spread gets bigger, as the
2 program is getting phased in and getting
3 bigger, the overall program's bigger but ten
4 people would still be the same effects, so
5 it's not getting bigger for that reason.
6 Then inflation is kicking in, but in real
7 dollars it's not getting any bigger. It's
8 just because inflation is happening here. So
9 I'm not sure I would -- I think I don't agree
10 with your general premise there.

11 BY MR. MORRIS:

12 Q. Okay. Understood. It's as a
13 result of inflation that the number gets
14 bigger, but it is, in fact, a bigger number
15 than if you were off by 100 people in year 1?

16 MR. KO: Objection.

17 Mischaracterizes Dr. Liebman's prior
18 testimony.

19 A. It is a bigger number in
20 current dollars but not in constant dollars.

21 BY MR. MORRIS:

22 Q. Let's jump for a minute in the
23 chart and go to Table 19.

24 MR. KO: Do you know what page

1 that's on?

2 MR. MORRIS: Let me work on

3 that here.

4 BY MR. MORRIS:

5 Q. Yes, so Page 57 of 144.

6 MR. KO: Thanks.

7 A. Are we in the tables or in the

8 report?

9 BY MR. MORRIS:

10 Q. I'm in Exhibit 7.

11 A. Say one more time, please.

12 Q. Page 57 of 144.

13 A. Okay.

14 Q. Before we get into the details

15 of that, if you can also pull out your

16 report, which is Exhibit 6, and turn to

17 Paragraph 90. And in the middle of that

18 paragraph, it says that "The team would be

19 responsible for establishing high frequency,

20 weekly and monthly metrics for tracking the

21 progress and efficacy of the abatement plan,

22 and for convening relevant stakeholders to

23 collaboratively review the metrics and

24 determine how to take action so as to

1 maximize the number of residents who receive

2 needed treatment, minimize the harms

3 associated with opioid use, and reduce the

4 flow of new individuals who use or become

5 addicted to opioids."

6 Do you see that?

7 A. I do.

8 Q. Okay. Is that the kind of

9 thing that the Government Performance Lab

10 does?

11 A. We try to coach governments and

12 communities in doing those kind of activity.

13 Q. Okay. When working with the

14 GPL, though, whether coaching to do that,

15 does that process happen before significant

16 funds are spent?

17 MR. KO: Object to the form.

18 A. Most commonly in our projects,

19 we scope a project five or six months before

20 implementation starts. That involves someone

21 on our team being on the ground in the

22 community for a few days typically. Every

23 once in a while we'll spend longer on the

24 ground, but typically two or three days, lots

1 of phone calls with the government we're

2 working with to figure out what the project

3 is going to be and then define that, and then

4 five months or so later after I've hired a

5 person or a team in some cases to go be on

6 the ground is when we start the

7 implementation phase that includes this kind

8 of work.

9 BY MR. MORRIS:

10 Q. And does that happen before or

11 after the funding of the program?

12 A. The most common projects we do

13 are ones where funding already exists, an

14 agency may be spending one hundred,

15 \$200 million a year on services, but there's

16 concern that they're not getting good results

17 for those services. And so we come in and

18 work with the agency and the existing service

19 providers to set up these kind of high

20 frequency data-driven collaborations to start

21 getting better results. So typically we're

22 coming in where the funding, the spending is

23 already happening.

24 Q. Is the -- are the systems in

1 place currently to just start implementing

2 the abatement plan as you proposed it?

3 MS. RITTER: Objection to form.

4 A. I think I need to know how you

5 define systems in that question.

6 BY MR. MORRIS:

7 Q. If all of the funding were

8 suddenly available, could the abatement plan

9 be implemented as you proposed it?

10 A. My recommendation at that point

11 would be to do more intensive work to make --

12 you know, there's a lot of things that are

13 not specified in my plan in full detail. For

14 example, we know how many treatment slots

15 there's supposed to be but not which specific

16 providers to contract with, or whether new

17 capacity needs to be built, and so there

18 would have to be a decision-making process

19 about allocating those funds that would get

20 to -- for the level of granularity beyond

21 what is specified in my report. And so I

22 would certainly recommend that the

23 communities do further intensive scoping and

24 planning. Some things one could tick off

1 right away and one should just get, going but
2 others will take some planning.

3 Q. And that's in part what the
4 bucket that's represented by Table 19 is
5 intended to try and help do, if I'm
6 understanding right?

7 A. Yes, I would imagine the
8 initial period would be a lot of trying to
9 get things off the ground, and then beyond
10 the initial period, there would be a lot of
11 trying to make sure that what's going on is
12 using these dollars as effectively as
13 possible.

14 Q. And in your contemplation, the
15 initial implementation organization and then
16 the continued work that you just described
17 would be done by the people that are
18 represented by the employees you've got
19 listed here on table 19?

20 MR. KO: Object to the form.

21 A. It would be in collaboration
22 with a lot of people in organizations already
23 on the ground. These communities have been
24 working to combat the opioid crisis for years

1 at this point, and so they have some very
2 effective, I think, collaborations going on,
3 but the people who are collaborating in those
4 working groups, most of them have full-time
5 other jobs, and, you know, they're sort of
6 adding this on. They don't have the capacity
7 that I think they need of -- to produce the
8 realtime data or to be -- they need
9 additional capacity beyond what's happening
10 right now and that's why that's in here.

11 BY MR. MORRIS:

12 Q. And why is the realtime data
13 important?

14 A. Let me give you an example from
15 a project I'm doing in Tampa right now.
16 We've got families in the child welfare
17 system where the reason the children are
18 being maltreated is that the parent has an
19 addiction, and so the child welfare agency
20 wants to connect these parents with addiction
21 treatment services so that the kid can be
22 safe and obviously it's good for the parent,
23 too, to not be addicted. And today if you
24 look at the data, when the child welfare

1 agency makes a decision that it wants to
2 connect someone to services, about 5 percent
3 of those people are getting into services,
4 which is obviously not enough. And so they
5 had a general sense that they weren't getting
6 a lot of people into services and that the
7 problem of addiction that was -- meaning that
8 the kids were being maltreated wasn't going
9 away, but they didn't know exactly, they
10 didn't even know the basic number of what
11 percent were getting there. We got a fellow
12 on the ground there. We started measuring
13 this with high frequency. We started
14 bringing together the treatment side and the
15 child welfare side for conversations about
16 why these roles weren't resulting in
17 treatment, and through that process and
18 discussion in a few months, that number is
19 already up significantly. So that's the kind
20 of example, if you're actually measuring what
21 you're trying to accomplish and if you get
22 people together to discuss the numbers and
23 where you can go, you can get to much better
24 results for the population you're trying to

1 serve and it's obviously a much more cost
2 effective way to use the dollars if it's
3 getting better results.

4 Q. For this data informed systems
5 re-engineering and management category that
6 we're talking about as being Table 19, you
7 contemplate, or you propose five individuals
8 in each county to be hired, is that right?
9 Am I reading that right?

10 A. Yes.

11 Q. And you have estimated salaries
12 for the individuals listed in Table 19,
13 correct?

14 A. Yes.

15 Q. And those are based on
16 estimated salaries from Government
17 Performance Lab, GPL, people?

18 A. Yes, I have hired people even
19 this week to do these exact functions, so I
20 know what they -- what I pay them.

21 Q. And do you expect GPL employees
22 will be hired for this?

23 A. I have no expectation of that.
24 I just think this function needs to exist.

1 Q. You're estimating the same
2 staffing level for all 15 years?
3 A. Yes.
4 Q. And what is that based on?
5 A. I think if you are doing a
6 program of this size and complexity, one
7 absolutely wants to be working to make sure
8 implementation is as strong as possible for
9 the whole period.
10 Q. You say for the whole period.
11 Would they go beyond year 15?
12 A. I haven't tried to make
13 projections beyond that.
14 Q. We talked earlier this morning
15 -- well, scratch that.
16 Do you envision that
17 significant changes would be made to the
18 abatement plan once these ten individuals in
19 the two counties are in place and start
20 thinking about what outcomes are needed to be
21 achieved?
22 A. I think the general categories
23 are the ones that are needed, but the
24 communities, we need more community

1 involvement in figuring out, for example, you
2 know, within treatment what mix, exact mix do
3 we really need of intensive outpatient versus
4 special hospitalization and things like that,
5 so I anticipate refinement, but I think the
6 categories and the aggregate spending
7 amounts, you know, those are going to hold
8 up. But I'm sure they will reallocate based
9 on local conditions and how local conditions
10 change from when I was last there and when
11 this actually gets implemented.
12 Q. The point of this category of
13 people is to try and be as effective and as
14 efficient as possible, fair?
15 A. I'm all in favor of
16 effectiveness and efficiency. I think the
17 point of these people I probably wouldn't
18 describe it that way. There's other things
19 they're trying to do.
20 Q. Okay. I get that they may do
21 other things, but I mean, they are trying to
22 make the plan as effective as possible --
23 A. Yes.
24 Q. -- in the most efficient way

1 possible, correct?
2 A. Yes.
3 Q. And to the extent that they're
4 particularly successful at that particularly
5 with efficiency, that could drive the costs
6 down across other categories, correct?
7 MR. KO: Object to the form.
8 A. I think it is -- the world can
9 evolve in ways in which there's need for
10 greater resources that are in my estimates
11 and lesser resources. My estimates are my
12 best estimates of what's going to be needed
13 for the next 15 years, but I gave you upper
14 and lower estimates for some components to
15 illustrate how things could change if, for
16 example, the Massachusetts number of OUD
17 being 4.6 percent or something in that
18 direction was more accurate than the 1.4
19 number then costs could be much -- and need
20 could be much higher than what I've estimated
21 here.
22 BY MR. MORRIS:
23 Q. On that point of doing the
24 higher and lower estimates, if you go,

1 looking at Table 1 where we were talking
2 about the cost of treatment -- and for --
3 I'll give you a second to get there. It's
4 Page 7 of 144.
5 A. I'm going to cheat to go to the
6 other document. It will be faster.
7 Q. That's fine. In any event it's
8 Table C.1.
9 A. Table C.1. All right. Yes.
10 Q. For the projected population
11 receiving treatment, your low case subtracted
12 33 percent from the base case, and your high
13 case increased it by 33 percent. Why did you
14 select those two numbers for your high and
15 low?
16 A. So when the future is unknown
17 and one needs to make assumptions, you want
18 to -- you know, that standard practice is to
19 do your sensitivity analysis in the way that
20 will be relevant and useful, and one way one
21 can do that is try to find -- in a case like
22 this where there isn't some probability
23 distribution that I can run a Monte Carlo out
24 of, a way to try to capture the relevant

1 range is to look at projections that, the
 2 range of projections that are out there in
 3 the literature for how the crisis might
 4 evolve, and so there was, there's a study
 5 which I cite somewhere, anyway, where a bunch
 6 of different experts were making a projection
 7 about how the opioid crisis would evolve, and
 8 I looked at that and there was one that
 9 seemed like a total outlier and I sort of
 10 ignored that one but then took a number that
 11 was in the middle of the others, and that's
 12 how I kind of got to this number.

13 Q. As part of the population
 14 receiving treatment category, as time goes
 15 on, did you have a different calculation for
 16 changing percentages of those who suffer from
 17 OUD versus HUD?

18 MR. KO: Object to the form.

19 A. So my treatment cost numbers
 20 are not varying depending on that split, and
 21 so that's not something that is in my
 22 estimates.

23 BY MR. MORRIS:

24 Q. Let's go to Table 2 now, if we

1 could. And that's treatment services for the
 2 medication assisted treatment, correct?

3 A. That's the medication treatment
 4 itself, not -- the same people might also be
 5 getting some of the appropriate treatment,
 6 but this is the medical, the medication
 7 component.

8 Q. Okay. And for this one you
 9 also calculated, or you estimated that the
 10 number of people, percent of the population
 11 receiving MAT treatment would double by year
 12 4?

13 A. Not quite. The population
 14 receiving MAT quadruples by year 4. So you
 15 see 4,045 is twice 1,011.

16 Q. I'm sorry. Caught my on my bad
 17 reading skills there.

18 And what is that based on?

19 A. It's very similar to the
 20 conversation we already had about the
 21 doubling of treatment. There is both a
 22 general consensus in the literature, in the
 23 literature that is recommending abatement
 24 strategies that one can significantly

1 increase the percentage of people receiving
 2 MAT and that that would be a good thing to do
 3 to reduce deaths and improve well-being, but
 4 then the specific number I use relies on
 5 Dr. Lembke's report.

6 Q. The same reference that we
 7 looked at before?

8 A. It's roughly, it's maybe a
 9 paragraph later than where we were looking.

10 Q. Okay. We were on Page 96
 11 before of the Lembke report, and I'm sorry, I
 12 already lost track of which exhibit that is.

13 MR. KO: I don't think you ever
 14 marked it as an exhibit.

15 MR. MORRIS: I did. I probably
 16 didn't say it.

17 A. On mine it's Exhibit 13.

18 BY MR. MORRIS:

19 Q. Exhibit 13. Thank you. Before
 20 we were in -- on Page 96, Page 17, is there a
 21 different reference to the increase for MAT
 22 services?

23 A. We were in Paragraph 17 before,
 24 and I think you want to look at Paragraph 18

1 now.

2 Q. Okay. And there does she cite
 3 to any support for her estimate of
 4 quadrupling the number of people who receive
 5 MAT treatment?

6 A. I think she cites to a study
 7 down here which I'm not familiar with, but
 8 then she also notes, I think, in Paragraph B
 9 that she's relying partially on evidence from
 10 Massachusetts and Vermont.

11 Q. Okay. You said that you, for
 12 the assumption of moving the MAT treatment,
 13 quadrupling the number of people who receive
 14 the treatment, you referred to Lembke,
 15 discussions that you've had. What else
 16 beside Lembke did you rely on for that? I've
 17 forgotten what your earlier answers, I'm not
 18 trying to trick you. You mentioned Lembke.
 19 What else did you rely on for your assumption
 20 of your estimation of quadrupling people who
 21 receive MAT treatment?

22 MR. KO: Object to the form.

23 A. So in, for the -- for my
 24 conclusion, my general conclusion, that it is

1 possible to greatly increase the percentage
 2 of people receiving MAT, that comes from, if
 3 we turn to -- I've lost my report. Right
 4 here. If we turn to my report, Page 12,
 5 footnote 24, you can see the CDC report
 6 "Evidence-Based Strategies For Preventing
 7 Opioid Overdose, What's Working in the US."
 8 You can also see the Surgeon General's report
 9 "Facing Addiction in America, the Surgeon
 10 General's Spotlight on Opioids." So both of
 11 those recommend that the nation take efforts
 12 to greatly increase the amount of MAT and
 13 think that it can happen and think that it
 14 will have a major impact on deaths and other
 15 harms. I spoke with the national experts
 16 like Alexander and Lembke and discussed this
 17 with them and with local physicians like
 18 Dr. Parran, Dr. Smith, so all of those
 19 approaches to gathering information which is
 20 what I do whenever I'm trying to design a
 21 solution to a policy problem, read the
 22 literature, gather information from national
 23 experts, talk to local people, they all
 24 informed my judgment that it was reasonable

1 to rely on the numbers that were in
 2 Dr. Lembke's report.
 3 Q. You mentioned speaking to
 4 Dr. Alexander. How often did you speak --
 5 how many times did you speak to
 6 Dr. Alexander?
 7 A. I don't know the exact number.
 8 I would have to go look at my calendar to
 9 figure out exactly how many.
 10 Q. Did you talk to Dr. Alexander
 11 following his deposition?
 12 A. No.
 13 Q. Did you talk to Dr. Alexander
 14 in preparation for your deposition today?
 15 A. No.
 16 Q. Did you talk -- did you talk to
 17 Dr. Lembke?
 18 A. Yes.
 19 Q. How often did you -- how many
 20 times did you talk to Dr. Lembke?
 21 A. Either once or twice. I
 22 remember specifically once, but there might
 23 be one other.
 24 Q. How long ago was that?

1 A. I think it was -- I'm pretty
 2 sure it was in 2018, and I could guess what
 3 month, but it would be plus or minus two
 4 months, so that's probably not a good thing
 5 for me to do.
 6 Q. What did you talk to Dr. Lembke
 7 about?
 8 MR. KO: To the extent that
 9 these communications and conversations
 10 happened in the presence of counsel,
 11 I'd instruct the witness not to
 12 answer.
 13 A. I would say the main -- well,
 14 there were a lot of people, so it was a long
 15 -- the call I'm remembering was a long call,
 16 but it was two and a half hours or something
 17 like that. And so there were a lot of topics
 18 discussed. One thing I remember spending a
 19 lot of time on in that call was the question
 20 of whether someone is ever cured of OUD or
 21 whether people need persistent treatment for
 22 a long period of time, and Dr. Lembke's view
 23 was that one needs to think about addiction
 24 as a chronic condition that lasts for

1 someone's lifetime after they've experienced
 2 addiction, and that we have to have treatment
 3 capacity capable of serving the whole stock
 4 of people who have ever experienced OUD for
 5 quite some time. So that was like -- that
 6 was one of the things we talked about.
 7 BY MR. MORRIS:
 8 Q. Do you remember anything else?
 9 A. We definitely talked about the
 10 question of if one put a lot more resources
 11 into this problem what percent of people
 12 could one get into treatment and get to take
 13 up MAT, you know, because you could imagine
 14 doing an abatement plan that says that
 15 15,000 people with OUD, let's assume costs
 16 associated with giving 100 percent of them
 17 MAT, and I needed to decide whether that was
 18 a reasonable thing to do or whether I should
 19 assume that we were going to treat a number
 20 smaller than 100 percent, so there was
 21 discussion of what the evidence suggested
 22 was, could be achieved with an injection of
 23 additional resources.
 24 Q. You mentioned you also talked

1 to Dr. Alexander, and I forgot if I asked you
 2 this so I apologize. How many times did you
 3 talk to Dr. Alexander in connection with this
 4 case?

5 MR. KO: Asked and answered,
 6 but you can answer again.

7 A. I don't remember the exact
 8 number.

9 BY MR. MORRIS:
 10 Q. You don't remember how many
 11 times you talked to him? I don't remember
 12 that you said you don't remember how many
 13 times you talked to him. All right. Do you
 14 remember what you talked to him about,
 15 though?

16 A. So there were a variety of
 17 conversations, so --

18 MR. KO: I provide the same
 19 instruction as before to the extent
 20 that his communications were with or
 21 involving counsel, I instruct the
 22 witness not to answer.

23 A. I would say there were two
 24 broad categories of conversations. One was

1 about what components should be in an
 2 abatement plan. The second category had to
 3 do with the compartment model that he was
 4 building.

5 BY MR. MORRIS:
 6 Q. And the conversation you had
 7 with him regarding his compartment model,
 8 what was that conversation?

9 A. He was explaining -- I'm not
 10 very familiar with his model so I may be not
 11 able to go into great detail here, but he was
 12 explaining why -- what he had added to his
 13 model that was, I would say, an advance over
 14 existing compartment models.

15 Q. Did that have relevance to the
 16 opinion you were developing for this case?

17 A. I don't think I can answer that
 18 question and comply with your advice to me,
 19 David.

20 Q. Well, let me ask this.
 21 Did you have conversations with
 22 Dr. Alexander where counsel was present that
 23 included information that you were relying on
 24 for your opinion?

1 A. Not in the context of the
 2 compartment model discussions. To the extent
 3 that we were discussing where the categories,
 4 harm reduction and prevention that should be
 5 in a treatment plan, he was one of many
 6 sources that suggested what are a pretty
 7 standard set of components that I included in
 8 my plan.

9 Q. And those were conversations
 10 you had with him while counsel was present?

11 A. I think, my memory is that --
 12 sorry, I'm trying to remember, the
 13 conversations we're talking about are in the
 14 previous calendar year, so it is -- my memory
 15 is that most of those conversations had
 16 counsel present, but I cannot be sure if
 17 100 percent of them did.

18 Q. Okay. So what I'd like to do
 19 is be able to get any information that you
 20 gathered from Dr. Alexander that you used and
 21 relied upon in your opinion regardless of
 22 whether counsel was there or not, because if
 23 you got information from him that you relied
 24 on, doesn't matter to me whether counsel was

1 there or not. Let him say whatever he's
 2 going to say. My question is, have you told
 3 me about every conversation you had with
 4 Dr. Alexander where he provided you
 5 information that you were relying upon for
 6 your opinion?

7 MR. KO: Objection. Asked and
 8 answered.

9 A. I don't think there were any --
 10 I do not remember any further conversations
 11 beyond the two categories that I described
 12 for you, the ones about his compartment model
 13 and the ones where we were discussing what
 14 categories should be included in the report.

15 BY MR. MORRIS:
 16 Q. On the topic of what categories
 17 to include in the report, have you reviewed
 18 Dr. Alexander's report?

19 A. Yes.

20 Q. And your categories and his
 21 categories are not exactly overlapping,
 22 correct?

23 MR. KO: Object to the form.

24 A. There are things in my report,

1 in my categories that are not in his, and
 2 there are things in his that are not in mine.
 3 BY MR. MORRIS:
 4 Q. Why is that?
 5 A. I think there are two reasons.
 6 One is an issue we talked about before that
 7 he was a doing a national proposal, and so
 8 there are categories that are, for example,
 9 federal responsibilities that were beyond the
 10 scope of what I was doing that are in his
 11 report but they just weren't things I was
 12 including. And then there were some things
 13 that I put in my report, I think, because of
 14 my experience, having been working on the
 15 ground on these issues in a number of
 16 jurisdictions, that I'm aware of and think of
 17 as important, like the system coordination
 18 elements that wouldn't necessarily be a thing
 19 that a physician would start with if they
 20 were putting together their top ten list of
 21 components.
 22 Q. On the category of issues
 23 categories for an abatement plan that you
 24 don't include in your -- and we talked about

1 that before, kind of national in scope
 2 things, have you considered what those
 3 categories that you did include, how they
 4 might impact your estimated costs for your
 5 abatement plan?
 6 MR. KO: Object to the form.
 7 A. I think what the literature is
 8 very clear on and what the expert opinion is
 9 very clear on is that a solution to this
 10 crisis is multifaceted, and you need to not
 11 only do all the things that I propose here
 12 for these bellwethers, but the federal
 13 government needs to be doing a bunch of
 14 things as well, and so I think these things
 15 are all interconnected.
 16 BY MR. MORRIS:
 17 Q. Did you do any calculations to
 18 say, well, if the federal government does
 19 more of X, it will impact the abatement plan
 20 that I'm developing for Cuyahoga and Summit
 21 in Y way?
 22 MR. KO: Object to the form.
 23 A. I have considered in general
 24 the overall environment that we're in and

1 that these things interact, and -- but I
 2 think if you look at the expert consensus,
 3 say, for how much treatment is needed or how
 4 much MAT is needed. There's not anyone out
 5 there saying, hey, if customs does a little
 6 bit more, we're not going to have to treat
 7 all these people or even it's going to
 8 significantly change the number we're going
 9 to treat. I've thought about that issue, but
 10 it's not -- anyway, I've thought about that
 11 issue.
 12 BY MR. MORRIS:
 13 Q. But there's no calculation that
 14 you've done about the way in which, as a
 15 matter of metrics or any sort of numerical
 16 value of impacts, the federal government may
 17 have on the Cuyahoga and Summit?
 18 MR. KO: Object to the form.
 19 A. So I don't, I have not built a
 20 compartment model to project impacts of
 21 different components.
 22 BY MR. MORRIS:
 23 Q. Have you told me about all the
 24 conversations that you had with Dr. Alexander

1 in which conversation impacted your opinion
 2 in this case?
 3 MR. KO: Object to the form. I
 4 don't think he said "impacted."
 5 Anyway, go ahead. I'm sorry.
 6 MR. MORRIS: No, that's fine.
 7 BY MR. MORRIS:
 8 Q. What I meant was, have you told
 9 me about all of the conversations you've had
 10 with Dr. Alexander in which you relied upon
 11 something he said in forming your opinion?
 12 A. I think I've described the two
 13 main types of conversations we had. I'm sure
 14 there are other categories of things where he
 15 was helpful in directing me to papers to read
 16 and literature that I might not be aware of,
 17 and so I think -- so I think there's -- I'm
 18 sure I got other benefit from him beyond what
 19 we've explicitly talked about.
 20 Q. Nothing that you can remember
 21 expressly, though, as you sit here today?
 22 A. No.
 23 Q. We talked about Dr. Lembke and
 24 conversations you had with her. Are there

1 any other conversations you had with her in
 2 which you benefited or relied upon something
 3 she said to form your opinion that we haven't
 4 talked about?
 5 A. No.
 6 Q. I'm going to go into some next
 7 tables. Maybe we can take a quick break.
 8 MS. RITTER: That's what I was
 9 wondering. It's been about an hour.
 10 A. It's a good time to break.
 11 THE VIDEOGRAPHER: The time is
 12 2:48 p.m., and we're off the record.
 13 (Whereupon, a recess was
 14 taken.)
 15 THE VIDEOGRAPHER: The time is
 16 3:00 p.m., and we're on the record.
 17 MS. RITTER: Is the phone back
 18 on now because they said they --
 19 THE COURT REPORTER: Yes.
 20 BY MR. MORRIS:
 21 Q. Dr. Lembke, we're going to go
 22 through some more of the -- your categories
 23 in your tables.
 24 MR. KO: You just called him

1 Dr. Lembke.
 2 BY MR. MORRIS:
 3 Q. Oh, I'm sorry.
 4 A. I think you gave me a
 5 promotion, but I'm not sure.
 6 Q. Dr. Liebman, I apologize. We
 7 will we going through those tables in a
 8 second. Question for you, though, in
 9 communicating with other experts that have
 10 been disclosed in this case, like
 11 Dr. Alexander, Dr. Lembke, did you have any
 12 e-mail communications with them?
 13 A. Yes.
 14 Q. And with which expert, other
 15 expert did you have e-mail communications?
 16 A. So what I'm not sure of is
 17 there's sort of two ways that communication
 18 happened. Sometimes there would be a
 19 document that would go from me to the
 20 attorneys and the attorneys to them, or
 21 vice-versa if we were, like, sharing a paper
 22 we wanted the other person to read or
 23 something like that, like academic paper that
 24 we thought would be useful to the other

1 person. And sometimes there were -- less
 2 frequently there were direct e-mails with the
 3 attorneys CC'd, so there were -- so I think,
 4 so you asked which experts. Do you have a
 5 list of the -- does someone have a list?
 6 Q. Well, let's go -- I'll go
 7 through them. Dr. Alexander?
 8 MR. KO: So what's the
 9 question, if he had e-mail
 10 communications with Dr. Alexander?
 11 MR. MORRIS: Yes.
 12 A. I'm not sure whether there are
 13 any direct ones. I think most of them were
 14 through the attorneys, but I can't remember
 15 all e-mails.
 16 BY MR. MORRIS:
 17 Q. And putting aside, you know,
 18 like, scheduling things or, hey, there's a
 19 trial date of this, you know, things that
 20 deal with timing and things like that, I'm
 21 talking about substantive e-mails about your
 22 reports, were there those sorts of e-mails
 23 with Dr. Alexander?
 24 A. The ones I remember were all

1 sending documents, not, you know, an e-mail
 2 saying, hey, what do you think about this,
 3 but I have to go through all my e-mails to
 4 make sure I'm not forgetting something.
 5 MS. RITTER: And if you're
 6 asking about communications that
 7 include the lawyers, then we would
 8 have to instruct him not to answer,
 9 but right now you're just asking him
 10 for the people, right?
 11 MR. MORRIS: Right, whether
 12 there were e-mails.
 13 MS. RITTER: So that question
 14 we're fine with. If we're going to go
 15 beyond that to the content of it, then
 16 we would instruct him not to answer.
 17 MR. MORRIS: And that's where I
 18 would explore, if there were e-mails
 19 that he was using to rely upon in
 20 forming his opinions, then we might
 21 have to parse some things.
 22 BY MR. MORRIS:
 23 Q. So for the moment let's start
 24 with Dr. Alexander. Do you know how many

1 e-mails there were?

2 A. So they're -- the different

3 kind of question, you said the scheduling

4 ones, so anyway, the answer is I would have

5 to go look.

6 Q. Ones where substantive

7 information was being communicated including

8 like, A, read this article, do you have an

9 estimate as to how many of those type of

10 e-mails?

11 A. I would have to go look at my

12 e-mails.

13 Q. Okay. Dr. Lembke, were there

14 e-mails with her?

15 A. I do not believe I've ever

16 e-mailed Dr. Lembke. I think I've been CC'd

17 on scheduling e-mails that she and I were on

18 the same e-mail, but I don't think I've ever,

19 to my recollection -- but recollection I've

20 never e-mailed with her.

21 Q. How about Parran?

22 A. To the best of my recollection,

23 I have not e-mailed with him.

24 Q. Are you aware that the Parran

1 opinion has been withdrawn from the case?

2 A. Yes, I've read that.

3 Q. Are you relying on anything

4 from the Parran opinion?

5 A. There are several citations in

6 my report to the -- to Parran's report.

7 Those are things where I also had broader

8 knowledge of the topic or had discussed with

9 him on the phone, so they were not things

10 where I was exclusively relying on Parran.

11 Q. Understood. But are you

12 relying on anything from his opinion, in your

13 opinion?

14 MR. KO: Objection. Asked and

15 answered.

16 A. All of the things where I cite

17 Dr. Parran, I have -- I know that information

18 from places in addition to his report.

19 BY MR. MORRIS:

20 Q. So you're not relying, then, on

21 Dr. Parran for your opinions?

22 MR. KO: Objection. Asked and

23 answered.

24 A. I think I'm going to give the

1 same answer again, which is all the places

2 where I cite Dr. Parran I have other ways to

3 know the same information.

4 BY MR. MORRIS:

5 Q. Right. So there's two or more

6 things that you're relying on where you rely

7 on Dr. Parran, I get that. My question is,

8 are you -- when you have multiple, are you

9 also relying on Dr. Parran?

10 MR. KO: Multiple what?

11 Objection. Form.

12 A. I think that relying on has a

13 technical legal meaning that I probably don't

14 understand in this context that I may need

15 explained to me.

16 BY MR. MORRIS:

17 Q. In forming your opinion, is the

18 material in the Parran report -- I'll come

19 back to this. I'll come back to this.

20 How about Professor Cutler,

21 have you e-mailed with him regarding the

22 opinions in this case?

23 MR. KO: Regarding the opinions

24 that Dr. Liebman is giving in this

1 case?

2 MR. MORRIS: Either one, his or

3 Cutler's.

4 A. Most of my interactions with

5 Dr. Cutler were very early in the process, so

6 I'm not sure that any of that communication

7 pertained to things that are in -- I would

8 have to figure out whether any of that

9 pertained to anything that ended up being the

10 scope of my report, and I don't actually know

11 what the scope of his report is, but I've had

12 e-mails with Dr. Cutler.

13 BY MR. MORRIS:

14 Q. How about with Dr. Rosenthal?

15 A. I've e-mailed Dr. Rosenthal.

16 Q. And what was the substance of

17 those communications?

18 A. What am I allowed to say if

19 lawyers are on the e-mails?

20 MS. RITTER: I instruct him not

21 to answer to the extent the

22 communication also involved counsel.

23 But your question was pretty broad.

24 He could have e-mailed her about her

1 garden because the last question
 2 didn't say about the report you were
 3 issuing in this case or her reports so
 4 it makes it a little bit difficult --
 5 MR. MORRIS: Let me ask it --
 6 MS. RITTER: -- but I would
 7 instruct him not to answer to the
 8 extent that it's information that
 9 involved counsel.
 10 BY MR. MORRIS:
 11 Q. Let me ask it this way. Were
 12 there e-mail communications you had with
 13 Dr. Rosenthal regarding your opinions in this
 14 case?
 15 A. I asked her for some citations
 16 on a particular topic, and she supplied those
 17 for me.
 18 Q. What was of the topic that you
 19 asked for citations for?
 20 A. The future price trajectories
 21 of pharmaceuticals.
 22 Q. Meaning how much
 23 pharmaceuticals might cost in the future?
 24 A. What inflation rates to use for

1 prescription drugs.
 2 Q. Do you remember which of the
 3 articles it was that she sent to you, or
 4 provided to you?
 5 A. Let me look at the tables, I
 6 may or may not be able to remember. All
 7 right.
 8 (Witness reviewing document.)
 9 A. Sorry, give me one second.
 10 Okay. So in Table C.2, row 7, there was the
 11 question of what would happen to the price of
 12 Naltrexone when it comes off patent, and I
 13 believe she gave me a reference for
 14 literature on how prices come down after
 15 things go off patent, but what I don't
 16 remember is whether I used that one or a
 17 different source on that topic.
 18 Q. On the topic of inflation
 19 rates, what -- for the inflation rate that's
 20 on Table I, it's Page 5.
 21 A. We're still on -- this is of
 22 144.
 23 Q. Yes, 5 of 144.
 24 A. I messed up because I don't

1 have a three-ring binder here. All right.
 2 5. Yes.
 3 Q. Okay. What did you use those
 4 -- what categories did you apply that
 5 inflation rate to?
 6 MR. KO: Object to the form.
 7 A. Okay. So there are ten
 8 inflation rates, so I can start with one and
 9 take you through it.
 10 BY MR. MORRIS:
 11 Q. Sure. Let's go down, yeah.
 12 A. All right. I'm going to have
 13 to cross-reference tables so this may take --
 14 I will try to be efficient at giving you the
 15 flavor of this rather than being exhaustive
 16 if that's --
 17 Q. Let me ask you -- and we can
 18 walk through it. I'm not trying to cut you
 19 off.
 20 A. Okay.
 21 Q. But my first question is, what
 22 did you use, or why did you choose the
 23 inflation rates that are listed here?
 24 A. There are different kinds of

1 goods and servicing -- services that would
 2 need to be provided in the abatement plan,
 3 and different goods and services have
 4 historically and will likely in the future
 5 have different price paths. And so to be as
 6 accurate as possible, I tried to use an
 7 inflation rate that applied to the category
 8 of product or service that was being used.
 9 So for example, when thinking about what
 10 would happen -- so for things that involved
 11 hiring somebody, I have an initial wage and I
 12 have to -- and I have initial benefits and I
 13 have to project that into the future. The
 14 sensible thing to use for that is the
 15 employment cost index which is a price index
 16 that is specifically meant to measure costs
 17 associated with employment, and I further
 18 disaggregated because historically there's
 19 been a difference in the inflation rate for
 20 private employment and state and local
 21 government employment, and so for positions
 22 that I anticipated would be within
 23 government, I used the state and local one.
 24 For ones that were outside the government, I

1 used the private industry one.

2 Q. Are all of the ones that are

3 listed here US-wide as opposed to regional?

4 A. Yes.

5 Q. Did you consider using for any

6 of the places where you were going to use an

7 inflation rate to use a regional inflation

8 rate?

9 A. Well, for some of the things,

10 there's sort of a national market, and so

11 that wouldn't -- I don't think that would --

12 there would be a distinction there. You

13 know, for most inflation rates for big

14 categories like employment costs, we wouldn't

15 have an obvious reason to project big

16 differences in different regions for those

17 costs, so the national number, I think, is

18 useful. And the other thing that's good

19 about the national number is that there

20 actually exists several forecasters of those

21 numbers whereas I'm not aware of subnational

22 forecasts, say, for the consumer price index.

23 I mean, there's obviously subnational

24 retrospective numbers, but not forecasts that

1 I've encountered, although maybe someone in

2 the private sector does that.

3 Q. There are differences, though,

4 depending on the kind of thing you're trying

5 to measure, in inflation rates based on

6 geography?

7 MR. KO: Object to the form.

8 A. I think the more relevant issue

9 is that there are difference in levels of

10 prices based on geography that what you would

11 pay someone to do a job in Cuyahoga might be

12 different than what you'd pay them to do the

13 job in Los Angeles, and those kind of level

14 differences are reflected in my report. So

15 for example when we are putting in a social

16 worker salary, we're taking them from the

17 data from existing social worker salaries in

18 the specific bellwethers, so I think I

19 incorporated what is the most important

20 regional variation to incorporate.

21 BY MR. MORRIS:

22 Q. Okay. Let me, before we get

23 back into the other tables let me just finish

24 this off. Did you have e-mails with McGuire?

1 A. Yes.

2 Q. And what were the --

3 substantive e-mails regarding your opinions

4 in this case, you had those kind of e-mails?

5 MR. KO: Object to the form.

6 BY MR. MORRIS:

7 Q. The reason I asked it that way

8 is before I got chastised for potentially

9 asking you about e-mails that wanted to know

10 about the weather, so I'm only asking you

11 about e-mails, substantive e-mails related to

12 the opinions that you're giving in this case.

13 Did you have such e-mail exchanges with

14 McGuire?

15 A. Yes.

16 Q. And what was the nature, the

17 subject of those e-mails?

18 A. The main one I recall was a

19 discussion of the rate of opioid use disorder

20 in the bellwethers.

21 Q. And is that one where he gave

22 you a reference to look at, or is he just

23 giving you his opinion about it?

24 MR. KO: Object to the form.

1 A. We were discussing different

2 ways of extrapolating from national rates to

3 local rates, and one possibility was to use

4 the relative mortality rates in the

5 bellwethers relative to the nation, which

6 would have resulted in a higher rate of

7 opioid use disorder than I use in my report

8 and higher expenditures on treatment. And we

9 were discussing the relative merits of that

10 versus doing what I did, which was assume

11 that the national numbers applied to the

12 bellwethers.

13 BY MR. MORRIS:

14 Q. Did you have e-mail,

15 substantive e-mail exchanges about your

16 opinion with Gruber?

17 A. Any e-mails I had with

18 Dr. Gruber were in the first month or so of

19 the case, and I'm pretty sure they weren't

20 any things that were substantive having to do

21 with my opinion.

22 Q. Okay. Let's go to Table 4

23 which I have starting at Page 13 of 144.

24 A. All right.

1 MR. KO: Just to be clear, it's
2 C.4, right?
3 MR. MORRIS: C.4, correct. I
4 know that there's two Table 4s, but
5 we'll start with C.4. And this is
6 your estimate for the cost of
7 connecting individuals to services, is
8 that right.
9 A. Yes.
10 BY MR. MORRIS:
11 Q. Okay. Now, in this category
12 you have staffing of a 24-hour, 7-day-a-week
13 referral line. You have staffing for
14 emergency departments, transportation
15 assistance and web-based referral systems?
16 A. Yes.
17 Q. What's your basis for those
18 items as effective for connecting individuals
19 to services?
20 A. So first as a general point,
21 that I think there's a very strong consensus
22 in both the national literature and in my
23 conversations with individuals in the
24 communities that one of the biggest

1 challenges in combatting the opioid crisis is
2 actually getting people to get connected with
3 services and start receiving services, that
4 people will be open to treatment for a short
5 window of time but if treatment isn't
6 available to them at that point in time, then
7 they may not access services and that in the
8 bellwethers particularly I heard lots of
9 discussions, for example, when we talked to
10 the EMS and police and other first responders
11 about their frustrations about when they drop
12 someone off at an emergency room in an
13 overdose that there isn't a way to
14 immediately get that person -- at least, you
15 know, to trying hard to get that person
16 connected to services. So there was a bunch
17 of sources that contributed to my view that
18 this general category was -- was really
19 important, and that one couldn't achieve the
20 increase in levels of take-up of MAT or of
21 the therapeutic services if you didn't also
22 solve the connecting people to services
23 problem.
24 Would you like me to go one by

1 one through each of the categories?
2 Q. Thank you. We'll do that
3 together.
4 A. Okay.
5 Q. How about that? So you have
6 down here -- well, let me just stop you
7 there. So I heard you talking about
8 conversations with people in general
9 consensus. I didn't see any citations to any
10 articles, for example, for including the
11 categories that you do on Table 4.
12 A. Let me just turn to my report
13 for a minute.
14 Q. Sure. I have that on Page 17
15 going into 18.
16 A. Well, it does look like I
17 treated this as something that was so obvious
18 I didn't need to cite again to the, you know,
19 major report categories. But, you know, if
20 you -- if you look at the big national
21 reports about what needs to be done, you
22 know, those do talk about this issue and it's
23 certainly part of what Vermont focused very
24 heavily on in making progress on as well.

1 In terms of the specific needs
2 in the bellwethers, all --
3 Q. Let me -- we'll go through each
4 one of them.
5 A. Okay.
6 Q. Thank you for that. So let's
7 start then. It will make it easier if I ask
8 questions and you respond. Going into the
9 first category here, staff the 24/7 referral
10 hotline, you have eight people operating the
11 24/7 line. Any consideration of the number
12 of people required decreasing over time based
13 on the success of the abatement program
14 overall?
15 A. The issue is you want someone
16 to be able to get someone on the phone and
17 not be put on hold, and the reason for -- you
18 know, the reason for staffing it this way is
19 to make sure there's adequate staffing for
20 that. I would think even 12 years from now
21 if someone is having a relapse and somebody
22 needs treatment, we don't want them put on
23 hold.
24 Q. Is there some reason or basis

1 you came up with eight as opposed to five or
2 fifteen?

3 A. Yes. It was based on
4 calculating the hours of coverage. Let me
5 see if I can remember the exact calculation
6 there.

7 Q. I see. If you go -- to help
8 you out, you go to the note 1.

9 A. Yep. Oh, there I do. So I
10 figured out how many hours there were to be
11 covered and I wanted two people there at all
12 times and I divided -- I assume that no one
13 wanted to work more than 50 weeks a year
14 potentially -- we assumed -- actually I'm not
15 sure we're assuming they got any vacation,
16 52 weeks a year, and so that's how I did that
17 calculation.

18 Q. Okay. And it's for two
19 operators at all times?

20 A. Yes.

21 Q. Okay. And is there a metric by
22 which their success would be measured?

23 MR. KO: Object to the form.

24 A. One of the things I would very

1 much hope would be in these high frequency
2 measures that would be created as the system
3 got set up would be, for example, the percent
4 of people showing up at the emergency
5 department because of an overdose who began
6 treatment within a week, or within two weeks,
7 and so that kind of metric would help us
8 understand whether we were doing enough on
9 the connection side.

10 BY MR. MORRIS:

11 Q. Next one is staff emergency
12 departments, and you have 22 social workers
13 listed there?

14 A. Yes.

15 Q. I see from the notes that
16 that's based on 22 registered hospitals in
17 Cuyahoga?

18 A. Yes.

19 Q. Is that right? Okay.

20 And is there a metric by which
21 you would measure the success of that line
22 item?

23 A. I think I would use the same
24 metric of people presenting at the emergency

1 department who needed treatment -- sorry, who
2 had overdosed or showed other evidence of
3 need of treatment, how many of them got
4 connected to services within some period of
5 time.

6 Q. So moving on to the estimated
7 transportation costs -- sorry. Before we
8 move on to that one. The salary that you've
9 assigned for the staffing of emergency
10 services to -- assigned to opioid-related
11 visits and a percentage using recovery coach
12 remains the same over your 15-year estimate,
13 is that right?

14 A. Yes.

15 Q. So no estimated change based on
16 changing circumstances over that period of
17 time?

18 A. This is consistent with my
19 broad approach here, which is that even if we
20 hope that fewer people are having first
21 incidence of OUD they're still going to --
22 there's going to be this rising stock of
23 people who are relapsing and needing
24 services, and so what the -- I think what the

1 medical experts advised me was that they
2 thought treatment capacity was going to need
3 to continue at this level through the
4 15 years.

5 Q. When you've talked about --
6 scratch that. If you go to the cost of
7 transportation, that's tied to the number of
8 individuals that we were talking about from
9 chart 1, right, 25 percent of those
10 individuals, is that right?

11 A. Let me just double-check the
12 number, but it was a number like that. So
13 remind me what row we were on.

14 Q. I think it's --

15 A. Yes. Let's see. Do I have
16 that? Sorry, let me just do the math. So
17 the number sounds right. I just want to make
18 sure before I say yes that it is right. So
19 we have 758 divided by, whatever the number
20 is on C.1. Let me look over here again.
21 Yes, 25 percent looks right.

22 Q. Do you know where the
23 25 percent came from?

24 A. Yes. I looked at three numbers

1 in coming up with a judgment that that was
 2 the right number. The first estimates -- or
 3 there's survey data that shows that -- I
 4 think it was either 38 or 39 percent of
 5 people attending specialty treatment
 6 facilities are provided with transportation.
 7 So something in this magnitude is already
 8 being seen as a need by these facilities in
 9 order to get people into treatment. There's
 10 also a study that said that when people --
 11 when people asked why they didn't get
 12 treatment, 10 percent of people say it's
 13 because they're -- they couldn't get there
 14 because of transportation, and they also
 15 looked at data on the percent of people in
 16 the community who had cars and from looking
 17 at those three sources, I judged the
 18 25 percent was a reasonable number to use
 19 here.

20 Q. And the three sources you're
 21 talking about, are they cited somewhere?

22 A. They're in the materials
 23 considered. I can probably find them for
 24 you, if that would be helpful.

1 Q. Are they listed on the -- in
 2 the note section of the chart?

3 A. I think they may only be in the
 4 materials considered. I think because I was
 5 using my judgment based on reading things
 6 rather than taking a number specifically from
 7 someone. I may have been asked that
 8 indirectly, though.

9 Q. Okay. So you don't recall a
 10 specific 25 percent number?

11 A. I just told you three numbers
 12 that I looked at and used my judgment to say
 13 25 percent is a good estimate here.

14 Q. Go to Table 7, please, and
 15 we'll start with -- we'll use the Cuyahoga
 16 one as the example. So it's Page 23.

17 A. Okay.

18 Q. Okay. So first question is,
 19 here like other categories, this is based on
 20 assumption that the number of people needing
 21 assistance, the jail population, does not
 22 decrease, correct?

23 MR. KO: Object to the form.

24 A. That's correct.

1 BY MR. MORRIS:

2 Q. Did you calculate, or did you
 3 come up with a sensitivity range for this
 4 one? I didn't see a high, low case?

5 A. I did not.

6 Q. Is there a reason for that for
 7 this category?

8 A. So I guess I would say two
 9 things. I think the categories where I did
 10 do sensitivity was to what I think is the
 11 factor that has -- we talked earlier about
 12 the first couple of categories being the
 13 biggest and the factor that if it changed
 14 could most have an impact on this plan is the
 15 number of people needing treatment for OUD,
 16 and that's the number where, as I mentioned,
 17 there's some chance the number is actually
 18 higher than what I'm using here and so I
 19 wanted to be able to show that. Here there
 20 was some concern that, you know, if you read,
 21 for example, the Pitt et al. study, there's
 22 some concern that in the transition in which
 23 we are more effective at getting people to
 24 use -- to not be abusing prescription opioids

1 that might lead to more heroin use during
 2 that period, and there was concerns that in
 3 the jail population that might mean that we
 4 would have continued high rates throughout
 5 this period, and so I think it was a
 6 combination of this not being as large a
 7 category as the other and there being some
 8 evidence that maybe this was going to stay
 9 high for reasons I've been talking about,
 10 about relapse and also transitions between
 11 different forms of opioid misuse that made me
 12 think this -- assuming a constant capacity
 13 here was reasonable.

14 Q. Let's move to Table 8, please,
 15 which is Page 28 of 144 for the Table C, C.8.
 16 Hold on. While you're orienting yourself,
 17 I'm going to grab the next exhibit.

18 MS. RITTER: What page did you
 19 say?

20 MR. KO: 28. 28, I think.

21 MR. MORRIS: 28 of 144.

22 MS. RITTER: Okay, I'm sorry, I
 23 mixed up the numbers.

24 BY MR. MORRIS:

1 Q. Okay. Dr. Liebman, on this one
 2 your calculations assume that there will be
 3 three to nine doses that should be made
 4 available community-wide for each opioid
 5 dependent individual, is that correct?
 6 A. Let me just review that. Where
 7 are you looking at the three to nine?
 8 Q. If you go to -- it's actually
 9 in your report. If you go to Page 21 of your
 10 report, I think we're still working on
 11 Exhibit 6.
 12 A. I see. Yes, I was mixing up
 13 doses and kits in my head. That's why I was
 14 -- the numbers weren't sounding right to me.
 15 Okay. Yes.
 16 Q. Fair enough. But just to
 17 reset. So the calculations assume three to
 18 nine doses made available community-wide to
 19 each opioid-dependent individual, correct?
 20 A. That's the number for the
 21 community. We're not giving those all to the
 22 users. We're going to give it to family
 23 members. We're trying to have them out in
 24 the community in general.

1 Q. Understood. But the
 2 calculations for your --
 3 A. Yeah.
 4 Q. -- estimated cost --
 5 A. Yeah.
 6 Q. -- were based on that?
 7 A. Yeah.
 8 Q. Okay. And you get that number
 9 of three to nine doses from Dr. Parran's
 10 report?
 11 A. My memory, it was a different
 12 report, but I may be wrong.
 13 Q. I'm looking at, if you go to --
 14 and you're welcome to look at your chart, but
 15 if you go back to your actual report on
 16 Page 21.
 17 A. Okay. You're right. The text
 18 does rely on the Parran report, but I think
 19 we also had that number in a second doctor's
 20 report but I'm forgetting which one.
 21 Q. Okay. Let me show you what
 22 I've marked as Exhibit 14, which is the
 23 expert report for Theodore Parran.
 24 (Whereupon, Liebman Exhibit

1 Number 14 was marked for
 2 identification.)
 3 MR. MORRIS: Parran, I'm not
 4 sure how to pronounce it actually.
 5 MS. RITTER: Parran, you're
 6 right.
 7 BY MR. MORRIS:
 8 Q. If you go in Exhibit 14 to
 9 Paragraph 352.
 10 A. Okay.
 11 Q. And that's where Dr. Parran
 12 writes "Best estimates demonstrate that for
 13 every person identified with dependence as
 14 well as misuse use disorder, administrators
 15 should plan for between three to nine" --
 16 sorry, "three and nine doses of naloxone per
 17 person." He doesn't cite anything for that
 18 proposition. Do you know what that's based
 19 on?
 20 A. I don't, though I've heard very
 21 similar numbers from some of other physician
 22 experts.
 23 Q. What other physician experts?
 24 A. I should say experts in

1 general. I believe -- I'm honestly getting
 2 confused between whether this is in Keyes or
 3 Lembke or Alexander but I've seen discussion
 4 of this issue in at least one of those.
 5 Q. Dr. Parran states that it's --
 6 the best estimates demonstrate that three to
 7 nine is an appropriate figure. That's not a
 8 statement of certainty, correct?
 9 MR. KO: Object to the form.
 10 A. I think that's a pretty precise
 11 range that tells us, gives us a very good
 12 guidance to how much you would want to
 13 provide in the community.
 14 BY MR. MORRIS:
 15 Q. Do you know how many doses of
 16 naloxone are currently being used within the
 17 communities?
 18 A. We had data on that because, if
 19 I recall correctly, in Cleveland EMS buys
 20 for, I think, everyone in the community and
 21 so we were able to see numbers on that, and
 22 so let's see if -- I cite this use data. I'm
 23 looking at the first responder. I need the
 24 footnotes. Okay. So you can see, you can

1 see footnote 15 off of Table C.8. You can
 2 see the cite to the Cleveland EMS document
 3 that let us know the number of doses
 4 currently being purchased, so that's the
 5 12,082 number in Table C.8.

6 Q. And that's the number that was
 7 currently being purchased by first
 8 responders, and then you had that
 9 extrapolated out over time, correct, for that
 10 line item?

11 A. Yes, there's -- yes, right.

12 Q. The projected population
 13 requiring Narcan kits in the top of that,
 14 though, is additive of the naloxone doses
 15 purchased by first responders, correct?

16 A. That's right.

17 Q. All right. Let's move to Table
 18 9, which I have for Cuyahoga starting on
 19 Page 32 of Exhibit 7. Okay. And this is the
 20 estimated cost of syringe exchange program.
 21 Do you see that?

22 A. Yes.

23 Q. And this assumes that there's
 24 going to be an increase in needles exchanged

1 in Cuyahoga County by 50 percent over the
 2 15-year period?

3 A. Yes.

4 Q. There's an assumption, though,
 5 if you go to the Summit chart --

6 A. Yeah.

7 Q. -- that the needles exchange in
 8 Summit would be increased by two-thirds?

9 A. Mm-hmm.

10 Q. What's that based on? Why is
 11 there a difference between the two?

12 A. Because we had different
 13 information from the two communities about
 14 the unmet need, and so we had -- in Summit
 15 there was a specific document that I -- there
 16 was a -- I think it was a budget proposal
 17 saying here's what we really need if we had
 18 the money to do it, and so we were basing
 19 that ramp-up on what they said they needed,
 20 and then similarly in Cuyahoga there was some
 21 information on additional capacity they used
 22 to have that they scaled back because of
 23 funding and we based off of that. We
 24 calibrated it to that.

1 Q. Okay. Are those citations
 2 somewhere?

3 A. Let's see where the citations
 4 are here. I'm not seeing the citation on
 5 Cuyahoga. I think they're probably in the
 6 materials I consulted but not in the
 7 citations here.

8 Q. Do you know which of the things
 9 within the materials consulted?

10 A. I can try to look, but I fear
 11 that will be a lengthy process.

12 Q. What kind of article are you
 13 thinking of, or what kind of citation are you
 14 thinking of?

15 A. So I think in Summit it was
 16 something in the -- as I said, something in
 17 the spirit of a budget request, and I don't
 18 remember where the document was in Cuyahoga
 19 that talked their about their -- how they
 20 worked. I think there was a mobile van that
 21 they used to have that they were no longer
 22 able to afford, but I don't remember if that
 23 was in the annual report of the program or of
 24 the ADAMHS Board or somewhere like that.

1 Q. Why don't we do this, we may
 2 come back to that. If you go to now Table
 3 10, a question about that one, which is a few
 4 pages further in, Page 36 and 37. And this
 5 is the estimated cost of HAV --

6 A. Yes.

7 Q. -- and HCV treatment?

8 A. Yes.

9 Q. And the costs there are based
 10 on an estimate of the number of people who
 11 became infected by injecting heroin or other
 12 opioids, is that correct?

13 A. Yes, yes.

14 Q. Okay. Now, it looked to me
 15 like for this population you actually
 16 calculated a decrease over time in the
 17 number?

18 A. What I did here was I only put
 19 in the costs for treating people who are
 20 currently infected. In the future more
 21 people are going to get infected, but I
 22 didn't have a good way to model that given
 23 that I'm -- given the framework I'm using,
 24 and so to be conservative, I only put enough

1 resources in to treat all the people who
 2 currently are infected, but in fact, one
 3 would probably need some additional resources
 4 for newly infected people but fortunately the
 5 rate of new infections is not that high right
 6 now so that number would not be that big.

7 Q. There's no equivalent
 8 information about rates of infection with --
 9 of HIV from heroin users as there is for the
 10 projections you're making, for example, just
 11 for overall OUD use?

12 A. I didn't feel like I had a good
 13 basis to protect the future infections, and
 14 so I decided to go conservative and just
 15 treat the people who currently are infected.

16 Q. Table 11, this is for the
 17 category "Estimated Costs of Social Support
 18 Housing," and this estimates, the estimate is
 19 based on the number of homeless who have OUD
 20 and then calculates the cost to cause those
 21 individuals, correct?

22 A. Yes.

23 Q. And it assumes that the number
 24 of individuals who are homeless and suffer

1 from OUD stays constant over 15 years?

2 A. Yes.

3 Q. Is there a reason why you had
 4 that number staying constant?

5 A. Basically simplicity. Again,
 6 it's a population that I thought would be
 7 hard for me to make a specific projection
 8 for.

9 Q. Is there current housing stock
 10 available for these individuals?

11 A. I'm not sure how to answer that
 12 question.

13 Q. Because it's a bad question,
 14 that's why you can't figure it out. Is there
 15 housing stock that is currently being
 16 utilized by individuals with either -- that
 17 are homeless that have -- suffer from OUD?
 18 Obviously if they're homeless, by definition
 19 they're not using the houses, but what I'm
 20 saying is, are there houses available for
 21 people who are homeless to be put into?

22 MS. RITTER: Objection to form.

23 A. You're asking whether there
 24 exists vacant housing units in either of the

1 bellwether communities?

2 BY MR. MORRIS:

3 Q. Yes.

4 A. I have not specifically looked
 5 at that, but I'm sure the other communities
 6 I've looked at, one doesn't have 100 percent
 7 occupancy.

8 Q. The housing cost, in other
 9 words, is the cost to place people in
 10 existing facilities?

11 A. Often when you set up a
 12 supportive housing program, you need to do
 13 some retrofitting, making it appropriate,
 14 putting in the support service capacity, the,
 15 you know, place for the counselors to do
 16 their counseling. So this is a number, the
 17 price here is consistent with the community
 18 where there is existing housing where you can
 19 do this work. We just did a supportive
 20 housing project, the Government Performance
 21 Lab did in Denver where there really wasn't
 22 that and Denver had to build new units, big
 23 new units to house the homeless, and if I
 24 designed a plan like that, that would have

1 been much more expensive, but my assumption
 2 here was we would be getting this housing
 3 from existing housing stock primarily.

4 Q. And here you've calculated the
 5 number of homeless with OUD per night at 324,
 6 correct?

7 A. Yes.

8 Q. And the projected or estimated
 9 cost for the housing is based on an
 10 assumption that all of those individuals who
 11 are homeless utilize the homes, the housing?

12 A. Yes.

13 Q. Is there a basis for that?

14 A. In the projects that I have,
 15 that my Government Performance Lab has helped
 16 set up in Massachusetts and in Denver where
 17 we provided supportive housing to homeless
 18 individuals and specifically targeted
 19 homeless individuals who had either complex
 20 mental health or substance abuse problems, we
 21 were able to house a very large faction of
 22 those individuals. I don't have exact
 23 numbers in my head, but it was definitely in
 24 the 80s or above that. So the assumption

1 that one could house most of these people, I
 2 think, is reasonable.

3 Q. And that they would actually
 4 take advantage of the housing?

5 A. Yes, and retention was quite
 6 good, yes.

7 Q. And that's through additional
 8 education efforts or outreach efforts?

9 A. This is called supportive
 10 housing, and so what that means is you're not
 11 just giving them the housing but you're
 12 giving them a social worker who is helping
 13 them access the other services they need as
 14 part of the housing.

15 Q. Is that something that's picked
 16 up in another category, or is that built into
 17 the cost of the housing?

18 A. It's built into the cost here.

19 Q. If you go to Table 13, please.
 20 And that's at page 44 of 144, and it's for
 21 the estimated cost of school-based
 22 prevention.

23 A. Yes.

24 Q. Here you've got a number of 106

1 social workers to be employed for this
 2 purpose.

3 A. Yes.

4 Q. Do you see that?

5 A. It sounds right, but I'm not
 6 seeing it exactly.

7 Q. Yeah, I'm sorry. It's line
 8 item 1 actually. This is for the Cuyahoga
 9 version of it.

10 A. Yeah, I've got Summit. That's
 11 why I'm having trouble here. Yes.

12 Q. Okay. What is that -- do you
 13 know what that means with respect to the
 14 terms of ratio of social workers to students?

15 A. Yes, so that's all sort of
 16 explained in this long footnote 1. Would you
 17 like to go into the details?

18 Q. Well, let me ask it this way.
 19 Would there be -- what would the metric be to
 20 determine success or not with this program?

21 A. I would measure whether -- I
 22 would measure the rate at which teenagers and
 23 people in their early twenties were becoming
 24 addicted to opioids over time and whether

1 that was coming down.

2 Q. And the goal would be to, what
 3 you just said --

4 A. Exactly, yeah.

5 Q. -- reduce the number of people
 6 in the future, kids in the future who become
 7 addicted, correct?

8 A. Yes.

9 Q. And have you calculated a
 10 potential estimate of how many -- the level
 11 of reduction that would result as a result of
 12 implementing the school-based prevention
 13 programs?

14 A. My analysis doesn't involve
 15 creating projections of the future opioid
 16 population.

17 Q. If you go to Table 14, and this
 18 is the Cuyahoga version of it. It starts at
 19 Page 46 of 144, and this is for the cost of
 20 medical provider education and outreach
 21 category. You have here three full-time
 22 equivalent medical outreach providers for
 23 Cuyahoga. Do you see that?

24 A. I do.

1 Q. What would these three people
 2 be doing?

3 A. They would be doing a variety
 4 of activities to try to coach providers in
 5 appropriate prescribing practices of opioids,
 6 and they would probably also, if we could get
 7 the data sharing working right, would be
 8 identifying the 5 to 10 percent of
 9 prescribers who seem to have the highest
 10 rates of prescribing and focusing efforts
 11 particularly on them.

12 Q. If you look in the note number
 13 1, there's -- it's based on an assumption
 14 that approximately 10 percent of physicians
 15 will be targeted for education. Do you see
 16 that?

17 A. Yes.

18 Q. Why did you assume that
 19 percentage of physicians being targeted for
 20 education?

21 A. When I've talked to medical
 22 experts who have been involved in this kind
 23 of medical detailing, that's what they've
 24 described as the kind of strategies you

1 employ to focus your attention on the people
 2 who seem to -- who might be the ones who are
 3 overprescribing.
 4 Q. And do you know how many visits
 5 per year that would mean for physicians by
 6 the outreach individuals?
 7 A. I have a number in my head, but
 8 I just want to make sure it's the same one
 9 that I'm using here.
 10 Q. If you go to Page 134, which is
 11 the further backup material for the tables.
 12 A. Okay. It has the two. That
 13 was the number I was going to say, but I
 14 wanted to make sure I was right. Okay.
 15 Q. Okay. So two, this would be a
 16 target for two physician visits per year by
 17 the employees in this category, the
 18 practitioners?
 19 A. And that's an average. In
 20 fact, you wouldn't literally go to everyone
 21 for two. Some may need more visits. Some
 22 may need less.
 23 Q. The goal of this also would be
 24 to reduce the number of people who eventually

1 become in the category of opioid -- having
 2 opioid use disorders?
 3 A. All of the components of the
 4 prevention plans that we're talking about
 5 that you try to prevent people from becoming
 6 misusers or addicted to opioids.
 7 Q. Okay. And like the other
 8 preventative categories, you don't have a
 9 metric to determine or a number in mind to
 10 determine success of those programs?
 11 MR. KO: Object to the form.
 12 A. I think in this one it's quite
 13 clear what metric one would use to tell if
 14 you're making progress, which is whether
 15 prescriptions were coming down. In
 16 particular I hope one would be able to do a
 17 more nuanced version and be able to measure
 18 the amount of appropriate and inappropriate
 19 prescriptions. So I think one could track
 20 progress on this one.
 21 BY MR. MORRIS:
 22 Q. You don't have a goal set,
 23 though, as part of your -- this portion of
 24 your abatement plan?

1 A. The goal is to make as much
 2 progress as one can make.
 3 Q. Let's go to Table 16. And
 4 that's at Page 58 of 144 for the Cuyahoga
 5 version and 51 for Summit County.
 6 A. Yes.
 7 Q. And it's cost of law
 8 enforcement investigations.
 9 A. Mm-hmm.
 10 Q. And have you an estimate for 25
 11 detectives investigating overdoses. Do you
 12 see that?
 13 A. Yes.
 14 Q. And for support for that, you
 15 have a citation to the deposition of Gary
 16 Gingell?
 17 A. Yes.
 18 Q. Okay. Is that the basis for
 19 your number of detectives for Cuyahoga
 20 County?
 21 A. Yes.
 22 Q. And you cite to two pages from
 23 his deposition. Do you see that?
 24 A. Yes.

1 (Whereupon, Liebman Exhibit
 2 Number 15 was marked for
 3 identification.)
 4 BY MR. MORRIS:
 5 Q. Giving you what's been marked
 6 as Exhibit 15, okay. If you can go to the
 7 pages that you cited there of the Exhibit 15
 8 which is the deposition transcript for Gary
 9 Gingell, if you can go to the pages in that
 10 deposition transcript 243, 244.
 11 (Witness reviewing document.)
 12 Q. You see his testimony there at
 13 the bottom of Page 243 where he talks about,
 14 he says "I could use, yeah, with the volume
 15 of -- with the numbers here, 243 deaths.
 16 I'll give you an example. The homicide unit
 17 had, I don't know, 110 or 115, whatever it
 18 was, homicides last year with, I think, 14
 19 detectives, so my guys had 243 death cases
 20 with 5 detectives and another 1300 something
 21 nonfatal cases. So yeah, I could keep that
 22 many people busy easy, and then you would
 23 need the bosses. Each squad would need a
 24 sergeant. You would need a lieutenant.

1 "Question, so if you could say
 2 you needed 20 to 25 more, it would be for the
 3 HIDI?
 4 "Answer, for the HIDI."
 5 Is that what you based your
 6 estimate of 25 detectives in Table C.16?
 7 A. Yes, that and a similar
 8 conversation with him in person.
 9 Q. Okay. So you had a
 10 conversation with him where he told you he
 11 thought that he could use 25 additional
 12 detectives?
 13 A. Yes.
 14 Q. Did you talk to anybody else
 15 about the number of detectives that might be
 16 needed?
 17 A. So I looked at the death
 18 statistics and the caseloads to verify that
 19 his view of this was reasonable.
 20 Q. And in Summit County, you have
 21 four additional?
 22 A. Yep.
 23 Q. What was that based on?
 24 A. It was again based on the view

1 of the local law enforcement individuals
 2 about the amount of their staff time that was
 3 being diverted to overdoses instead of doing
 4 what they used to be doing previously.
 5 Q. And did you do any empirical
 6 analysis of whether those two metrics were
 7 accurate?
 8 MR. KO: Object to the form.
 9 A. I relied on the local experts
 10 for these numbers.
 11 BY MR. MORRIS:
 12 Q. If OUD-related homicides were
 13 to go down, then there would be fewer
 14 officers needed for that, is that correct?
 15 A. Yes.
 16 Q. If you go to Table 17. If you
 17 look at the Summit one on this one, so this
 18 is for cost of tracking abatement process.
 19 The Summit version of the table is at
 20 Page 54. You have two individuals, a
 21 forensic scientist, FTE and an autopsy
 22 technician FTE. Do you see that?
 23 A. Yes.
 24 Q. I didn't see a reference for

1 the basis for that. Is there one?
 2 A. So I had detailed information
 3 from Cuyahoga about the relationship between
 4 the opioid crisis and the staff resources,
 5 and I came up with the Summit number by
 6 scaling basically based on the relative
 7 populations of the two counties.
 8 Q. Okay. Table 18, please.
 9 Before we go there, so Table 17, I think you
 10 referred earlier to this category of cost of
 11 tracking abatement process as related to the
 12 Category 19 or Table 19 which is the cost of
 13 data informed systems?
 14 A. They're related in that they
 15 are both activities that give us data that
 16 allow us to tell how much progress we're
 17 making.
 18 Q. Okay. So the individuals that
 19 would be doing work as reflected in Tables --
 20 Table 17 would be the kind of people that
 21 would give you additional information to
 22 determine whether the abatement plan was
 23 working?
 24 A. The people in Table 17 are

1 doing very specific things. They are
 2 conducting autopsies and figuring out what
 3 substance was in the body, and they are also
 4 often -- it's often the same office that if
 5 the police see some narcotics on the street
 6 and want to figure out what it is, they're
 7 the ones figuring that out. So it's a
 8 different activity than overall data
 9 planning, but it's an important contributor
 10 to knowing what's going on.
 11 Q. Understood. Okay. If you look
 12 at Table 18 now, that's the cost of court
 13 systems resources.
 14 A. Yes.
 15 Q. My question is, can you explain
 16 what people in this category would be doing
 17 generally?
 18 A. Yes. When I spoke to people in
 19 the courts, I learned that there were two
 20 places where additional capacity was needed.
 21 One was in helping connect people coming
 22 through the criminal justice service --
 23 sorry, the criminal justice system with
 24 services. And the drug court judges talked

1 about their frustrations of, you know,
 2 needing to leave people in jail when they
 3 should have been in treatment just because
 4 there wasn't a treatment bed yet, so trying
 5 to solve that kind of problem is one thing
 6 that they would be doing. And the second I
 7 would say is as part of the process to make
 8 all the pieces work together someone needs to
 9 represent the courts in these inner agency
 10 processes because the flow between the people
 11 in the courts and the jails and treatment is
 12 obviously an important nexus and one that,
 13 for example, in the Summit intercept report
 14 where the community was analyzing some of the
 15 challenges they were facing on getting people
 16 into treatment and into the appropriate
 17 setting, one that needed to be addressed, and
 18 so based on that I came up with my view that
 19 we needed two people in the courts to be
 20 doing that.

21 Q. And these would be two new
 22 additional people. There aren't people that
 23 are currently doing this?

24 A. This is in addition to the

1 current capacity.

2 Q. And what would the metrics be
 3 used -- what metrics would be used to
 4 determine their success?

5 A. I think we could use metrics on
 6 people diverted from jail to treatment, for
 7 example. If you give me a few minutes, I can
 8 come up with more but a bunch of things in
 9 that spirit.

10 Q. And you're estimating, though,
 11 or anticipating that they would be in those
 12 positions for the full 15 years of the
 13 abatement plan?

14 A. I think the issue of
 15 coordinating connections between jails and
 16 treatment is not something -- you know, this
 17 is a small number of people. You're not
 18 going to go from one person to half a person
 19 and you're going to need that capacity going
 20 forward.

21 Q. You have totalled -- you have a
 22 total estimated amount for your abatement
 23 plan broken down by years as we discussed add
 24 infinitum today. Did you calculate how much

1 it would cost per year if you add up just all
 2 of year 1, all of year 2, that way, as
 3 opposed to across?

4 MR. KO: Object to the form.

5 A. So for example, in Table 1 you
 6 see one of the years of that in the first
 7 column, is that -- am I understanding your
 8 question?

9 BY MR. MORRIS:

10 Q. Maybe. Let me take a look at
 11 one. I see, so you're looking at the annual
 12 cost year 5?

13 A. So I gave you one year after
 14 everything had been phased in. I have to
 15 admit I do not remember whether --

16 Q. That's fine.

17 A. -- there is a table, but my
 18 guess is we do have a table that adds them
 19 all up by year, but I can't remember off --

20 Q. Yeah, my question was merely a
 21 precursor.

22 A. Okay.

23 Q. So we can work with the annual
 24 cost year 5?

1 A. Could I -- can we take a break
 2 just to get something quick, please?

3 Q. I'm almost done --

4 A. Okay.

5 Q. -- with this and then we will
 6 definitely take a break.

7 A. Okay.

8 Q. Here on Table 1 you've got the
 9 annual cost year 5 at \$312 million, .2. Have
 10 you done any calculation such as if there
 11 were only 50 percent of \$312 million
 12 available which portions of your abatement
 13 plan would get funded?

14 A. I have not.

15 Q. Have you done any sort of
 16 prioritization?

17 A. I think the literature shows
 18 pretty strongly that you want to be doing all
 19 of these things. The Pitt et al. paper makes
 20 that point pretty strongly. The Chen paper
 21 makes that point pretty strongly. I think if
 22 we're actually going to make significant
 23 progress on abatement, we're going to have to
 24 be doing treatment, we're going to have to be

1 doing harm reduction, we're going to have to
2 be doing prevention and we're going to have
3 to have it all work together so that we don't
4 waste resources and have the best effect we
5 can.

6 Q. Okay. And so you don't have --
7 if you have less than all money available to
8 you, you haven't done sort of a --

9 A. I haven't.

10 MR. MORRIS: Let's take a
11 break.

12 THE WITNESS: Okay. Thank you.

13 THE VIDEOGRAPHER: The time is
14 4:16 p.m., and we're off the record.

15 (Whereupon, a recess was
16 taken.)

17 THE VIDEOGRAPHER: The time is
18 4:32 p.m., and we're on the record.

19 MR. MORRIS: Dr. Liebman, thank
20 you very much for your time today.

21 I'm going to cede my time, the rest of
22 my time to a colleague who will pick
23 up questioning. Appreciate your time.

24 I'll simply note for the record

1 that we object to the time limitations
2 placed on defendants for the taking of
3 expert depositions. So while I'm
4 ceding my time, I am preserving my
5 objection.

6 EXAMINATION

7 BY MS. HIBBERT:

8 Q. Hi, Dr. Liebman. I'm not sure
9 we actually had a chance to meet off the
10 record today, but my name is Kelly Hibbert
11 and I represent one of the defendants in this
12 case, AmerisourceBergen Drug Corporation.
13 Thanks again for being here today.

14 I have the fun job of picking
15 up second, and because of that I'm going to
16 be jumping around a little bit, so pardon me
17 for that.

18 I want to go back to a
19 discussion that we were having a little bit
20 earlier about the inflation rates that you
21 used.

22 Do you recall that testimony?

23 A. I recall generally that we
24 talked about inflation rates.

1 Q. Do you know whether the
2 inflation rates for, let's say, the midwest,
3 if those would be lower than the rates that
4 you use for any category?

5 A. I think it would depend on what
6 product and what time period.

7 Q. Have you looked at that?

8 A. I haven't in conjunction with
9 this case. As an economist I thought about
10 that from time to time.

11 Q. Would that have been something
12 that you would have liked to have known when
13 determining which inflation rate to use?

14 A. What I have seen in my past
15 work is that rates don't vary enough by
16 region for that to be something that needs a
17 lot of attention in an estimate like this.
18 When I've done estimates for plaintiffs like
19 this, I generally use the national numbers.

20 Q. What would be a large enough
21 variation to, I think you said, to be
22 important enough to account for?

23 A. The place where you want to
24 think hard about regional price variation

1 would be something I think in -- perhaps in,
2 if you're making specific projections about a
3 housing market where -- for example, big
4 coastal cities have tended to have higher
5 housing price growth than the middle of the
6 country. But there are specific things where
7 because things are enough different to
8 different parts of the country that you might
9 want to think about it. But when I've done
10 this kind of work, you know, for the GPL,
11 doing price estimates in different
12 communities and we need that inflation
13 number, I tend to take the projections from
14 CBO like I did in this report.

15 Q. So would there be a numerical
16 amount that would be a big enough variation
17 for you to want to consider using the
18 regional inflation rate versus a national
19 inflation rate?

20 A. I don't have one in mind.

21 Q. And same questions for the
22 inflation rate that would be specific for the
23 Cleveland, Akron area, you didn't look at
24 that rate to determine whether it would be

1 lower for any of the categories that you use,
 2 correct?

3 MR. KO: Object to the form.

4 Asked and answered.

5 A. I think as I said earlier, the
 6 key issue is that levels of prices are
 7 different, and I do incorporate the fact
 8 that, say, salaries are different in Cuyahoga
 9 and Summit that they might than, say, a
 10 national average salary. That's the thing
 11 that's a big enough difference to be worth
 12 making sure one takes care of it in an
 13 analysis like this.

14 BY MS. HIBBERT:

15 Q. But certainly a lower inflation
 16 rate could make a difference especially when
 17 you're talking about multiple millions of
 18 dollars, correct?

19 MR. KO: Object to the form.

20 A. An inflation rate that is
 21 higher or lower will lead to different
 22 numbers.

23 BY MS. HIBBERT:

24 Q. And if you used a lower

1 inflation rate for any of the categories in
 2 your estimate, your cost estimate here, those
 3 numbers could have been lower, correct?

4 A. Mechanically if I used a lower
 5 inflation rate, the number would be lower.

6 Q. I want to go back to the
 7 discussion that you had earlier about your
 8 conversations with Dr. Alexander who has been
 9 identified as an expert in this case. Do you
 10 recall generally that testimony from earlier?

11 A. Yes.

12 Q. I believe you said that one
 13 conversation that you had with Dr. Alexander
 14 pertained to certain components of the
 15 abatement -- your abatement plan, correct?

16 A. Yes.

17 Q. Were there any components of
 18 your abatement plan that Dr. Alexander
 19 specifically recommended?

20 MR. KO: Objection. Asked and
 21 answered.

22 A. I don't remember. I mean, as
 23 I've said a few times today these components
 24 are common across just about every proposal

1 for abating this crisis, so the fact that
 2 there's a lot of overlap between what I was
 3 reading, what he was saying, what other
 4 experts is saying is not a surprise here.

5 BY MS. HIBBERT:

6 Q. Let me ask it a different way.
 7 Were there any components of your abatement
 8 plan that you didn't already have included in
 9 the plan that Dr. Alexander then recommended
 10 to be included?

11 A. I'm just looking at my
 12 components to see if there's anything that I
 13 think we didn't already know about from five
 14 other sources.

15 There's nothing that pops out
 16 that I didn't already know would likely be a
 17 component.

18 Q. Were there any components of
 19 your abatement plan that Dr. Alexander
 20 recommended not be included?

21 A. No.

22 Q. Same question for any
 23 components of Dr. Alexander's abatement plan,
 24 did you offer any recommendations as to his

1 abatement plan?

2 A. No.

3 Q. Have you reviewed
 4 Dr. Alexander's expert report in this case?

5 A. Yes.

6 Q. So then you're aware of some
 7 differences in the total cost estimates for
 8 some of your overlapping programs, is that
 9 right?

10 A. He's doing national estimates
 11 and I'm doing bellwether ones, so it's not a
 12 direct comparison there.

13 Q. There's no direct comparisons
 14 for any of the overlapping components of
 15 either of your abatement plans, is that your
 16 understanding?

17 MR. KO: Object to the form.

18 MS. RITTER: Object to the
 19 form.

20 A. Can you ask that again, please?

21 BY MS. HIBBERT:

22 Q. There's no direct comparisons
 23 for any of the overlapping components for
 24 either of your abatement plans, is that your

1 understanding?

2 MR. KO: Same objection.

3 A. His estimates are national and

4 mine are local, so one would have to figure

5 out some way to convert the national ones to

6 the local estimates, for example, dividing by

7 the ratios of opioid deaths or population or

8 something like that before you could compare

9 the magnitudes.

10 BY MS. HIBBERT:

11 Q. You're aware then, if you

12 reviewed his report, that his abatement plan

13 is for a 10-year time period. Is that -- are

14 you aware of that?

15 A. I don't specifically remember

16 that, but I take your word for it.

17 Q. Did you have any conversations

18 with Dr. Alexander as to why he had a 10-year

19 abatement plan versus your 15-year abatement

20 plan?

21 A. No.

22 Q. Do you have an understanding of

23 why there would be a difference in the length

24 of the abatement plans?

1 MS. RITTER: Objection. And I

2 would instruct him not to answer. In

3 case he would have to rely on a

4 conversation with counsel in order to

5 answer the question, I would instruct

6 him not to answer only that portion of

7 an answer that he would be tempted to

8 provide.

9 BY MS. HIBBERT:

10 Q. With that instruction, can you

11 answer?

12 A. I do not know why he decided to

13 use 10 years.

14 Q. Why did you decide to use

15 15 years for your abatement plan?

16 MR. KO: Objection. Asked and

17 answered. Go ahead.

18 A. Because from reading the

19 literature on abatement plans and from

20 talking to both national and local experts, I

21 came to the conclusion that it was going to

22 take sustained effort over a 15-year period

23 to abate this crisis.

24 BY MS. HIBBERT:

1 Q. What specific national and

2 local experts did you speak to and rely upon

3 in making that determination?

4 A. I think I can't point to the

5 specific ones, but there were a lot of

6 different conversations and things I read.

7 Q. Can you point to any specific

8 literature that you relied upon for that

9 determination?

10 A. Not off the top of my head.

11 Q. Is there any way that I can,

12 you know, know sitting here today what the

13 basis is for your determination that a

14 15-year abatement plan is most appropriate in

15 this case?

16 A. I think you can see in the

17 medical expert reports of Dr. Lembke, for

18 example, that medical experts think that we

19 need a sustained effort at least that long.

20 Dr. Lembke talks extensively about how people

21 who are addicted today, many of them are

22 going to need lifetime treatment, and so I

23 think that's one of several places where you

24 can see quite clearly the medical consensus

1 that this is not a short-term -- it's not --

2 there's not a short-term solution to this

3 problem, that it's going to take sustained

4 effort over a long period of time to abate

5 the opioid epidemic.

6 Q. Lifetime is certainly more than

7 15 years, right?

8 MR. KO: Object to the form.

9 A. Sorry, you're saying that

10 people live longer than 15 years?

11 BY MS. HIBBERT:

12 Q. Your lifetime, your 15-year

13 abatement plan isn't to take into account the

14 lifetime of any particular person that might

15 be serviced by this plan, is it?

16 MR. KO: Object to the form.

17 A. Sorry, I give a 15-year plan.

18 I would expect that we need to continue to

19 spend resources on this beyond 15 years.

20 BY MS. HIBBERT:

21 Q. Does Dr. Lembke discuss why a

22 15-year abatement plan would be better than,

23 say, a 10-year abatement plan?

24 A. I don't recall specifically.

1 Q. Have you spoken to anybody
2 aside from counsel in this case about the
3 appropriate length of time for an abatement
4 plan?

5 MS. RITTER: Objection to the
6 form. Foundation.

7 A. Yes.

8 BY MS. HIBBERT:

9 Q. Who?

10 A. I did a phone call that was a
11 group call with several of the medical
12 experts where we explicitly discussed this
13 topic.

14 Q. What medical experts did that
15 include?

16 A. Dr. Ryan from Cincinnati,
17 Dr. Parran from Cuyahoga, and Dr. Lembke.

18 Q. And what was the substance of
19 that conversation?

20 A. Among the topics we discussed
21 was whether the level of services in an
22 abatement plan needed to extend beyond 10
23 years, and the consensus out of my discussion
24 with those doctors was that it did.

1 Q. And did all three of those
2 doctors agree that it needed to extend
3 further than 10 years, longer than 10 years?

4 A. My impression and memory of
5 that call was that at the end of the call we
6 were -- that three of them were in the same
7 place there and all agreed on that.

8 Q. And do you recall any of the
9 reasons that they said or that they thought
10 that the abatement plan needed to extend
11 15 years as opposed to 10?

12 A. Yes. They said that we have to
13 think about this as a chronic disease, not as
14 something that gets solved quickly, and that
15 because the stock of people who have ever had
16 OUD is constantly rising, that treatment
17 needs were going to continue even if we
18 started slowing the rate that new people
19 started having addictions.

20 Q. Right. But why 15 over ten?

21 MR. KO: Objection. Asked and
22 answered.

23 A. That was the view of the
24 medical experts.

1 BY MS. HIBBERT:

2 Q. Or 15 over 14, it was just a
3 determination -- let me ask you this
4 question. Strike that.

5 Was there any discussion as to
6 whether the abatement plan should continue
7 for 14 years versus 15 years?

8 A. I think the discussion we had
9 was ten versus 15.

10 Q. And when did that discussion
11 take place?

12 A. If we look at my -- let's see.
13 If we look at my report, I think we can find
14 that in the conversations. Sorry, I only
15 have the conversations with the local
16 experts. I don't have the medical experts
17 here. It was in 2018. I could give you a
18 guess of the month, but it would be plus or
19 minus two months.

20 Q. When you were just looking at
21 something, I can't see beyond what's in front
22 of you there, and you said you only had the
23 conversations with the local experts and not
24 the medical experts, what were you looking at

1 there? Is that Appendix C to your report?

2 A. Appendix C, yes.

3 Q. So are there additional
4 conversations that you're relying on for your
5 opinions in this case that aren't disclosed
6 here on Appendix C of your report?

7 MS. RITTER: Objection to the
8 form.

9 A. First of all, checking to see
10 if -- so I've had lots of conversations with
11 lots of people who helped me generally
12 understand this crisis. And so this is a
13 list of interviews I did with people from the
14 bellwethers, so that's not a list of the
15 general conversations I had with people to
16 understand the crisis.

17 BY MS. HIBBERT:

18 Q. Just to be clear, there are
19 conversations that you've had with other
20 folks that aren't from the bellwethers as you
21 stated that you're relying on for your
22 opinions in this case?

23 A. I think you need to define the
24 legal term rely. There's lots of things that

1 help me understand the situation in a broad
2 sense.

3 Q. Clearly you're relying on the
4 conversation that you've told me about with
5 these medical experts, Dr. Ryan, you said,
6 Dr. Parran and Dr. Lembke for the basis for
7 your determination to use a 15-year length of
8 time for your abatement plan versus a
9 10-year, correct?

10 A. That conversation informed my
11 judgment on that, as did other evidence that
12 this was a problem that was not going to be
13 solved in a few years.

14 Q. Are there any other
15 conversations that aren't disclosed in the
16 Appendix C that informed your judgment
17 underlying your opinions in this case?

18 A. I'm not aware of any.

19 Q. You're not offering any
20 opinions in this case, Dr. Liebman, are you,
21 that regarding any costs already incurred by
22 the plaintiffs as a result of the defendants'
23 action in this case, correct?

24 MR. KO: Object to the form.

1 A. Are you asking about costs in
2 the past?

3 BY MS. HIBBERT:

4 Q. Correct.

5 A. I am not.

6 Q. And you're not offering any
7 opinions regarding any costs incurred or to
8 be incurred by plaintiffs outside of what is
9 detailed in your abatement plan and estimate
10 of costs, correct?

11 MR. KO: Object to the form.

12 A. The opinion I am offering is
13 that there is -- that one can construct an
14 abatement plan and that one can have costs on
15 it. That's what my opinion is.

16 BY MS. HIBBERT:

17 Q. And all of your opinions
18 regarding your abatement plan and your
19 estimation of the costs are included in your
20 report, the supplemental report and the
21 supplemental appendices that you have -- that
22 have been submitted to us in this case that
23 we've looked at here today, is that right?

24 A. Yes.

1 Q. You don't have anything else
2 aside from what you've told us about today, I
3 think there were two circumstances, that you
4 intend to supplement or change in any way
5 with regard to your opinions, is that right?

6 MR. KO: Object to the form.

7 Asked and answered.

8 A. That's correct.

9 BY MS. HIBBERT:

10 Q. There were a number of the
11 components to your abatement plan where you
12 seem to assume a population that stayed
13 constant over time. I think you said it
14 included child welfare population, the
15 maternal program, inmates with opioid use
16 disorder, and the homeless population. Would
17 you agree with that?

18 MR. KO: Object to the form.

19 A. In most cases I am assuming
20 that the capacity needs stayed constant over
21 time, is the specific thing I'm assuming.

22 BY MS. HIBBERT:

23 Q. I'm sorry, the capacity for
24 what?

1 A. For example, with the jails, in
2 Cuyahoga I recommend that there be two
3 specialty facilities available to treat
4 people with addictions and that those
5 facilities that would be -- well, there's one
6 already, but the additional facilities would
7 be open for the full 15-year duration.

8 Q. And with regard to the child
9 welfare, we can take a look at the table if
10 you'd like, you're also assuming that the
11 children placed in foster or institutional
12 care, the number of children placed in foster
13 or institutional care stays constant over the
14 15-year time period for your plan, correct?

15 MS. RITTER: Objection to the
16 form.

17 A. I assume that there is a number
18 of social workers and caseworkers and other
19 clinical staff in that department that we
20 need to get to and that we would then keep
21 that level constant.

22 BY MS. HIBBERT:

23 Q. Based on the fact that the
24 number of children in those programs would

1 stay the same, is that fair?

2 A. Well, I'm basing the number

3 based on the needs today, and then I'm

4 assuming that we are going to need that

5 higher capacity going forward.

6 Q. You're assuming that the needs

7 stay constant for the next 15 years, is that

8 fair?

9 A. I'm assuming that the service,

10 yeah, the same level of services would be

11 provided, yes.

12 Q. Because the need would be

13 there, the need would stay constant?

14 MS. RITTER: Objection to form.

15 BY MS. HIBBERT:

16 Q. I'm not trying to beat around

17 the bush. I just -- I'm asking a question.

18 You're answering a little bit of a different

19 question.

20 A. Well, because I didn't -- the

21 way I thought about what I did isn't the way

22 you're phrasing it. The way I thought about

23 it was I figured out the level of services

24 that are needed now and I assumed that that

1 level of services would continue to be

2 available into the future.

3 Q. Are you offering an opinion in

4 this case as to the level of services that

5 will continue to be needed in the next

6 15 years for any of the components of your

7 plan?

8 MR. KO: Object to the form.

9 A. I think implicit in making a

10 15-year projection of an abatement plan, I am

11 doing my best job to project what those

12 service needs will be.

13 BY MS. HIBBERT:

14 Q. Earlier you testified, I

15 believe, and correct me if I'm wrong, that

16 the abatement plan and cost estimates don't

17 identify or take into account who should be

18 paying for any of these estimated costs, is

19 that correct?

20 MS. RITTER: Objection. Asked

21 and answered.

22 A. That is correct.

23 BY MS. HIBBERT:

24 Q. And that includes the

1 individual defendants in this case, right?

2 A. That's correct.

3 Q. And it may also include the

4 plaintiffs themselves, is that fair?

5 A. I'm sorry, the question about

6 the plaintiffs? Say the question again,

7 please?

8 Q. Sure. Is it fair to assume

9 that your -- strike that.

10 Is it fair that the plaintiffs

11 themselves may actually contribute to the

12 estimated costs, paying for the estimated

13 costs in your abatement plan?

14 MR. KO: Object to the form.

15 A. I don't have any -- I don't

16 have any opinions about that. I'm just

17 explaining what the resource needs are, and I

18 don't have a -- I have not formed an opinion

19 about who would pay.

20 BY MS. HIBBERT:

21 Q. And your plan doesn't take into

22 account any third-party payers like the

23 federal government or the State of Ohio or

24 any insurance companies or anybody like that,

1 correct?

2 A. I wasn't asked to figure out

3 who would pay for this. I was asked to

4 figure out what the needs were to abate the

5 opioid crisis.

6 Q. Would there be a way for

7 somebody who would want to make that

8 determination to look at your abatement plan

9 and estimation of costs and break out what,

10 if any, portion would be attributable to,

11 say, the individual defendants in this case?

12 MR. KO: Object to the form.

13 A. I think in order to do that,

14 one would have to incorporate some additional

15 information beyond what's in my report.

16 BY MS. HIBBERT:

17 Q. What additional information

18 would we need to do that?

19 A. I think we're about to get into

20 a discussion of legal theories of blame that

21 I am not qualified to discuss.

22 Q. You're not qualified to discuss

23 that and you haven't done that in your

24 report, or your plan, correct?

1 A. That's correct.

2 MR. KO: Object to the form.

3 BY MS. HIBBERT:

4 Q. Is there any way to determine,

5 based on your abatement plan and the cost

6 estimates, what's already being paid for or a

7 type of program or component that's already

8 being paid for by, like, the federal

9 government, for instance?

10 A. In constructing this plan and

11 thinking about what should go in it, I

12 thought about both how do we continue the

13 things that are already being done and how do

14 we do enough additional so that we make as

15 much progress as possible on the opioid

16 crisis. So in thinking about that and

17 understanding what's currently being done,

18 some of the information I gathered would

19 allow one to figure out who was paying for

20 things now.

21 Q. And do you have that -- have

22 you made a determination and offered an

23 opinion here in this case as to who is

24 ultimately -- strike that.

1 So down the line in this case,

2 somebody might want to look at your abatement

3 plan and cost estimates and say -- or make a

4 determination as to who might be paying what.

5 Would we be able to look at your abatement

6 plan and estimation costs and determine what

7 portion of the plan and estimation of costs

8 the federal government would be responsible

9 for?

10 MR. KO: Object to the form.

11 A. I'm not sure I know how to

12 answer that question. You would have to make

13 an assumption about future -- whether, you

14 know, federal government has been making

15 grants, let's say, to states for naloxone.

16 You'd have to make an assumption about

17 whether those were going to continue, so I

18 have not done that analysis.

19 BY MS. HIBBERT:

20 Q. Would we be able to look at

21 your abatement plan and estimation of costs

22 to determine what components have

23 historically been paid for by the federal

24 government or the State of Ohio versus the

1 counties?

2 A. That's not something I was

3 asked to do, so it's not in the report.

4 Q. So based on what's in the

5 report, opinions that you've offered at this

6 point, no one would be able to make that

7 determination, is that fair?

8 MS. RITTER: Objection to the

9 form.

10 A. I'm not sure someone who

11 thought hard about this would know where

12 child welfare is paid for in the budget and,

13 you know, there's a literature on what share

14 of MAT is paid for by Medicaid, so I think

15 starting from this, one can start to think

16 about that question, but it is not something

17 I have done.

18 BY MS. HIBBERT:

19 Q. Further analysis and

20 calculations would have to be done, is that

21 fair?

22 A. Yes.

23 MR. KO: Object to the form.

24 BY MS. HIBBERT:

1 Q. In determining your abatement

2 plan cost estimates, did you consider the

3 county's current ability to provide some of

4 the services that you're recommending?

5 A. What do you mean by ability?

6 Q. Have you reviewed any of the

7 budgets for any county departments that would

8 be responsible for implementing these

9 programs?

10 A. Yes.

11 Q. And did you assess whether

12 there was currently any money available in

13 those budgets to implement some of these

14 programs that you're recommending?

15 A. You mean like spare money that

16 they're not spending on anything?

17 Q. Sure.

18 A. I did not see any such money.

19 Q. Did you make that assessment?

20 A. It was not part of my

21 assignment, but I've looked at a lot of

22 budgets, and I mean, what was quite clear

23 from conversations with government officials

24 in Cleveland and Akron and Cuyahoga and

1 Summit is that exactly the opposite is going
2 on, because the opioid crisis is using up so
3 much resources, they are not being able to
4 provide the usual level of public services in
5 lots of other parts of their budget, and so
6 there's squeezing and -- other services in
7 order to be able to do much, you know, more
8 here in a way that's having a detrimental
9 effect on the public services they used to be
10 giving.

11 Q. What years did you look at for
12 the budgets for the county departments that
13 you looked at?

14 A. I would have to look at my
15 notes to answer that question.

16 Q. Did you note, for example, that
17 in Summit County the children's services
18 budget did not utilize the full grant for
19 the -- I think it's the start program there
20 that was provided to them over the course of
21 the, I think, five-year period that they had
22 that grant?

23 MR. KO: Objection to the form.
24 Objection, assumes facts not in

1 evidence. Go ahead if you know.

2 A. I'm not aware of that.

3 BY MS. HIBBERT:

4 Q. Would that be something that
5 would be important for you to be aware of in
6 assessing the amount of estimated costs for
7 children's services in Summit County?

8 A. No. That was not the
9 assignment I was given. The assignment I was
10 given was to figure out what services needed
11 to be delivered, not figure out where they
12 were going to get paid for.

13 Q. So why look at the budgets at
14 all?

15 A. Because I wanted to understand
16 what level of services was being given, what
17 kinds of programs are in this community
18 versus another, because there are different
19 strategies you might -- you know, might use
20 in a different community. Just to give you
21 one example, when I was working on substance,
22 families involved in substance abuse in the
23 child welfare system in Connecticut, they
24 mostly contracted out for treatment services

1 and there was a very strong provider and I
2 was considering whether we should propose a
3 similar program for the bellwethers, but when
4 I studied what services were being provided
5 in the bellwethers, it was clear that they do
6 this in-house in the bellwethers and so the
7 thing to propose would be more social workers
8 in-house rather than to think about
9 contracting for those services, so I looked
10 at budgets to understand the treatment
11 strategies that would work in these
12 particular communities.

13 Q. Did you look at staffing levels
14 for any departments?

15 A. When it was relevant to my
16 work.

17 Q. Did you look at the staffing
18 levels over time for the children's services
19 department for Cuyahoga and Summit County?

20 A. I gathered some information on
21 that.

22 Q. What information specifically?

23 A. In my conversations with the
24 leaders of those departments, they described

1 to me how their staffing had evolved.

2 Q. Did your conversations involve
3 how staffing was cut for both Cuyahoga and
4 Summit County in the 2008, 2009 time period
5 due to the recession?

6 A. I definitely remember
7 conversations about staffing cuts. I can't
8 remember the exact years.

9 Q. Did your conversations involve
10 how those staffing levels after the 2008,
11 2009 layoffs had remained consistent since
12 that time period?

13 MR. KO: Objection.

14 A. You mean that they'd been at
15 the lower level.

16 BY MS. HIBBERT:

17 Q. Yes.

18 MR. KO: Object to the form.

19 Object to the extent it misrepresents
20 the actual evidence in this case.

21 A. I definitely got the general
22 perspective that staffing levels had been cut
23 and were not back to where they had been
24 before.

1 BY MS. HIBBERT:

2 Q. The staffing levels currently

3 are not back to where they were in the

4 pre-2008, pre-2009 layoff period, correct?

5 A. I don't know the exact years,

6 but there was an earlier period where they

7 had more resources.

8 Q. And their staffing levels now

9 are not back to where they were before they

10 had -- during that -- before that earlier

11 period when they had more resources, is that

12 fair?

13 MR. KO: Object to the form.

14 Object to the extent it misrepresents

15 the discovery and evidence that's been

16 produced in this case.

17 A. Sorry, I need you to ask the

18 question again.

19 BY MS. HIBBERT:

20 Q. Sure. Their staffing levels

21 now are not back to where they were in that

22 earlier time period before the layoffs, is

23 that your understanding?

24 MR. KO: Same objections.

1 A. I think you were referring to a

2 specific earlier time period. I do not know

3 what that earlier time period is so I

4 don't -- I can't confirm whatever you mean by

5 that period, but there was an earlier period

6 that I understand where staffing levels were

7 higher.

8 BY MS. HIBBERT:

9 Q. There was an earlier period

10 where staffing levels were higher and the

11 current staffing levels now are not back to

12 what they were before that earlier time

13 period when they were cut, is that correct?

14 MS. RITTER: Objection to the

15 form.

16 A. I think I'm not understanding

17 what's new --

18 BY MS. HIBBERT:

19 Q. Let me ask --

20 A. -- about this question compared

21 --

22 Q. Let me --

23 A. -- to what I already said.

24 Q. It's not new, it just hasn't

1 been answered. Let me ask it a little bit

2 different. Is it fair to say the current

3 staffing levels have never -- the staffing

4 levels have never recovered from the earlier

5 time period, whenever that might be, when

6 they were cut?

7 MS. RITTER: Objection to the

8 form. I'm not trying to be rude, but

9 I don't know if you're talking about

10 Cuyahoga or Summit so I'm having

11 trouble following.

12 BY MS. HIBBERT:

13 Q. Doctor, did you understand --

14 MR. KO: I started the

15 questioning talking about Cuyahoga and

16 Summit.

17 MS. RITTER: Okay. Sorry, I

18 just lost the train.

19 A. So I think we're getting beyond

20 my knowledge on this question.

21 BY MS. HIBBERT:

22 Q. Earlier you told me that you

23 were aware that there were staffing cuts in

24 an earlier time period, is that fair?

1 A. Yes.

2 Q. And I believe you told me that

3 you were aware that the staffing levels

4 currently are not up to what the staffing

5 levels were before those cuts were made, is

6 that fair?

7 A. That is my understanding.

8 Q. Does your abatement plan and

9 cost estimates take that into account, the

10 fact that the staffing levels for Cuyahoga

11 and Summit County children's services

12 department have remained consistent since an

13 earlier time period where layoffs occurred?

14 MR. KO: Object to the form.

15 Object to the extent it misrepresents

16 the evidence.

17 A. My exercise is to figure out

18 what staffing level we need going forward.

19 That includes staffing level to serve

20 opioid-related families that already exist

21 and incremental staffing above that. I give

22 the total. I don't -- it is not my -- I was

23 not given the assignment of disaggregating

24 that into current and additional. I just

1 give you the total.

2 BY MS. HIBBERT:

3 Q. So is it fair to say then the

4 staffing levels you recommend for Cuyahoga

5 and Summit County children's services in your

6 plan would essentially get those departments

7 back up to what they were before layoffs and

8 then something additional to that, is that

9 fair?

10 MR. KO: Object to the form.

11 Object to the extent it misrepresents

12 the evidence.

13 A. I don't think that's a correct

14 statement in that the broader question of

15 staffing applies to families beyond the

16 opioid-related families. I'm focusing simply

17 on what the needs of those families are, how

18 that should be staffed, and so I'm not

19 addressing in any way the question you're

20 asking about back to some other level. I'm

21 just figuring out what is needed now compared

22 to what is needed -- figure out what is

23 needed now.

24 BY MS. HIBBERT:

1 Q. You're not taking into account

2 what was needed five years ago?

3 MR. KO: Object to the form.

4 A. I am not looking backwards.

5 BY MS. HIBBERT:

6 Q. Does your plan and cost

7 estimates take into account whether Cuyahoga

8 or Summit County children's services

9 department had made specific requests for

10 additional staffing over the last ten years?

11 A. I think in the discussions I

12 had about the unmet need, the topic of, you

13 know, what the agencies -- so topics of

14 agency budgets came up in a general way but

15 not in a specific way.

16 Q. Did you consider whether there

17 were any barriers to implementation of any of

18 the programs that you were recommending in

19 your abatement plan?

20 MR. KO: Object to the form.

21 A. Yes, that's why this is a

22 multifaceted plan. So for example, a barrier

23 to getting people into treatment is

24 connecting individuals to services, and so I

1 couldn't just propose more MAT or more

2 treatment. I also had to have the resources

3 to overcome the barrier of people making it

4 to treatment, so if you look at the plan, the

5 various pieces fit together into a hole in a

6 way that is supposed to overcome some of the

7 things that prevent success today.

8 BY MS. HIBBERT:

9 Q. What were some of the barriers

10 to implementation of the MAT treatment that

11 you considered and incorporated into your

12 abatement plan?

13 A. We need more physicians capable

14 of supervising patients receiving MAT on an

15 outpatient basis after they've passed through

16 some of the more specialized facilities, and

17 so for example, that's why I have the

18 category for recruiting PCPs to provide MAT.

19 Q. Did you take into account any

20 push-back from the community in implementing

21 a more extensive MAT program in these

22 counties?

23 MR. KO: Object to the form.

24 A. I'm aware that these are

1 counties where some of the most prominent

2 abstinence only approaches were founded, and

3 so that has affected some of the historic

4 patterns of service delivery, but it didn't

5 enter specifically. I relied on the medical

6 experts in terms of thinking about, for

7 example, how -- what fraction of MAT we could

8 produce.

9 BY MS. HIBBERT:

10 Q. Your report in your opinions

11 recognize certain efforts that have been made

12 in Cuyahoga County and Summit County to

13 combat the opioid epidemic, correct?

14 A. Yes.

15 Q. And those included the Cuyahoga

16 opioid task force, is that fair?

17 A. Yes.

18 Q. I think you specifically

19 mentioned that in your report?

20 A. I don't remember if it's in my

21 report, but I'm certainly aware of it and I

22 think it was an effort.

23 Q. I'll turn your attention --

24 A. I believe you. I believe you.

1 Q. Well, turn real quick to
 2 Page 36 of your April report. I think that's
 3 is Exhibit 4. Correct me if I'm wrong?
 4 A. April 30, Exhibit 6.
 5 Q. Exhibit 6.
 6 A. Say the page again, please.
 7 Q. 36. Paragraph 36. And here
 8 you outline various -
 9 A. Yeah.
 10 Q. -- things that the Cuyahoga
 11 County opiate task force has done and
 12 implemented already to address the opioid
 13 epidemic, is that correct?
 14 A. Yes.
 15 Q. Did your model and cost
 16 estimates take into account these efforts and
 17 programs that have already been implemented?
 18 A. In many cases, yes, they helped
 19 me understand by discussing with the people
 20 running the programs the unmet need, what
 21 level of additional services were necessary.
 22 MR. KO: Kelly, I should have
 23 mentioned this before you started
 24 questioning. The witness has asked to

1 split up the remaining amount of time.
 2 He wanted a break in between like at
 3 the halfway point of the hour 25, so I
 4 think we're around there, so if
 5 there's a good point for your to
 6 break.
 7 MS. HIBBERT: Let me just
 8 finish this line.
 9 MR. KO: Yeah, of course, I
 10 just wanted to make sure you're aware.
 11 BY MS. HIBBERT:
 12 Q. Does your model also take into
 13 account the efforts of the -- Summit County's
 14 opiate task force? I know -- I don't think
 15 that's mentioned in your report.
 16 A. I'm certainly aware of their --
 17 of the efforts going on in the Summit
 18 communities.
 19 Q. Now, the cost estimates that
 20 you have put into place here -- let's take
 21 for example the naloxone distribution.
 22 That's something that both the Cuyahoga
 23 County and the Summit County opiate task
 24 force have already begun implementing that

1 program, is that correct? Is that your
 2 understanding?
 3 MR. KO: Object to the form.
 4 A. Both communities have expanded
 5 the distribution of naloxone in recent years.
 6 BY MS. HIBBERT:
 7 Q. So the cost estimates in your
 8 program pertaining to the naloxone
 9 distribution, those are not taking into
 10 account the money that's already being spent
 11 by the counties for those programs, is that
 12 right?
 13 A. No, it's not right. It takes
 14 into account both that money and the
 15 additional money. It is the sum of that
 16 money and additional money that is needed.
 17 Q. Okay. So that money -- the
 18 money that's already being spent is built
 19 into the cost estimates, is that fair?
 20 MR. KO: Objection to the form.
 21 A. Continuing a similar amount of
 22 money in the future is built into the cost
 23 estimates.
 24 BY MS. HIBBERT:

1 Q. The cost estimates aren't just
 2 for the additional money that it would take
 3 to continue with those programs?
 4 A. Sorry, the cost estimates,
 5 repeat that question, please.
 6 Q. Sure. The cost estimates
 7 aren't just for the additional money that it
 8 would take to continue implementing those
 9 programs.
 10 A. Additional and continue seem to
 11 conflict in that sense. I both have the
 12 costs that would be necessary to continue,
 13 and I have the additional. It is the sum of
 14 the two.
 15 MS. HIBBERT: Let's take that
 16 quick break.
 17 MR. KO: Thanks.
 18 THE VIDEOGRAPHER: The time is
 19 5:15 p.m., and we're off the record.
 20 (Whereupon, a recess was
 21 taken.)
 22 THE VIDEOGRAPHER: The time is
 23 5:25 p.m., and we're on the record.
 24 BY MS. HIBBERT:

1 Q. Dr. Liebman, we talked earlier
2 about how your abatement plan and cost
3 estimates, do they include the estimates for
4 individuals who were addicted or are addicted
5 to illicit opioids like heroin and fentanyl
6 and car fentanyl and various analogs, do you
7 recall that testimony?

8 A. Yes.

9 Q. Would it have been possible for
10 you to separate out that population of people
11 in performing your analysis and calculations
12 in this case?

13 A. I wasn't asked to do that so I
14 haven't thought heard about that question,
15 but I think it would be complicated.

16 Q. Have you ever done a
17 calculation like this before where you would
18 have to separate out a certain population
19 like this?

20 A. So, sorry, explain what like
21 this means.

22 Q. Well, when you say that it
23 would be complicated, what do you mean by
24 that?

1 A. I guess I was -- were you
2 simply -- was your question simply could I
3 make -- could we separate out MAT into people
4 who are currently using heroin and people who
5 are currently using prescription opioids?

6 Q. Let me put it this way. Would
7 it be possible to separate out all of your
8 cost components for every component any cost
9 associated with individuals that use or abuse
10 illicit opioids that have never used a
11 prescription opioid in their life?

12 A. The reason it could be
13 complicated is that there are market factors
14 in the illegal drug market that determine how
15 much heroin is supplied to a community that
16 probably is dependent on, overall on -- I
17 really haven't thought about this issue so I
18 don't think I want to offer an opinion.

19 Q. Okay. If someone wanted to do
20 that, take your abatement plan and estimation
21 of cost and take out of it all of the
22 estimates for costs associated with
23 individuals that have never taken a
24 prescription opioid in their life, would that

1 be possible?

2 A. Someone could make an
3 assumption of, I guess, on the treatment side
4 of what fraction of people were in that
5 category and simply break out that number
6 into 80 percent and 20 percent or whatever it
7 was.

8 Q. You didn't do that here in your
9 report?

10 A. I was not asked to do that.

11 Q. If someone asked you or if
12 someone wanted to down the line to take out
13 any of the estimated costs that were specific
14 to the cities of Cleveland and Akron, would
15 that be possible?

16 A. Do you mean expenditures of
17 city government or people living in those
18 communities being served?

19 Q. The expenditures associated
20 with those cities specifically?

21 A. I'm sorry, I don't think you
22 answered that. I'm not supposed to be asking
23 questions, but I don't think you answered.
24 You didn't make me understand your question.

1 So are you asking me which part of this
2 program would be -- would I propose to be
3 administered by the city governments and,
4 therefore, dollars would have to flow through
5 them to administer those programs?

6 Q. Let me try to make it more
7 clear since you don't understand, and that's
8 reasonable.

9 Would it be possible to
10 separate out any of the estimated costs that
11 are associated with residents that are in the
12 City of Cleveland or the City of Akron?
13 Start there.

14 A. One could do that, for example,
15 by taking the fraction of the total county
16 population that lives in those communities.
17 Some of the rates might differ in the cities
18 and the outlying areas, and one would have to
19 think hard about whether one would make
20 different assumptions in the different parts
21 of the county.

22 Q. What rates are you thinking of?

23 A. Maybe the number of the
24 percentage of families involved in the child

1 welfare system where opioid abuse is an issue
2 in that family, it could be that that rate
3 was different in the city than in the rest of
4 the county.

5 Q. Was there any data or any
6 information that you looked for or wanted to
7 see in forming your opinions and performing
8 your calculations that you couldn't find or
9 wasn't provided to you?

10 A. I think when everyone does
11 analysis like this, one has something you're
12 trying to estimate and you try to go find the
13 best source of data and you -- in lots of
14 categories, I look for one thing and I look
15 for another and I find what the best source
16 is that I can find out there. So I think the
17 answer is definitely yes, but I'm not -- it's
18 not going to be easy for me to give you a
19 detailed list.

20 Q. Have you asked anyone,
21 including the folks that you're working with
22 from Compass, any other experts or counsel in
23 this case, have you asked for any materials
24 that haven't been provided to you?

1 A. Materials that they have?

2 Q. I don't know. Materials that
3 you would have liked to have to perform your
4 analyses.

5 A. Let me give you an example. I
6 propose a facility for women and children who
7 when the moms need treatment, that was
8 modelled after a prior program called Miracle
9 Village. I tried to obtain the budget for
10 that but I think the program was around, say,
11 15 years ago. We asked lots of people, and
12 we never found this so I had to come up with
13 another way to estimate that based on similar
14 programs rather than that specific program.
15 So lots of things like that where, you know,
16 the way you find information is to dig and
17 you get the best information you can.

18 Q. And that program specifically
19 that you were just referencing, the maternal,
20 the new mom program, is that a fair
21 characterization?

22 A. Not necessarily new moms, but
23 it's the addicted moms program, moms who need
24 treatment program. Yeah.

1 Q. Strike that. Okay.

2 I'm going to ask you to turn
3 to, I think it's Exhibit Number 8. Is that
4 your -- the updated most recent copy of your
5 tables?

6 A. Okay. I think we've been
7 working off number 7, but I'm happy to move
8 to number 8.

9 Q. What's the difference between
10 number 7 and number 8?

11 A. Let me just triple check before
12 I give you the answer. Exhibit 8 includes
13 the correction in the child welfare category.

14 Q. Let's use Exhibit 8 then
15 because that's where we're going.

16 A. Good.

17 Q. Page 17 of 133, Table C.5 of
18 Exhibit 8, please. Let me know when you're
19 there.

20 A. You went too fast. Say it
21 again, please.

22 Q. Page 17 of 133.

23 A. Thank you.

24 Q. Are you there?

1 A. I am.

2 Q. I have some specific questions
3 so bear with me. For line number 8, the
4 family advocate of ongoing caseload, do you
5 see that line?

6 A. Yes.

7 Q. On your sources and notes you
8 state for number 8 that this is assumed to be
9 an approximately equal to line number 6 which
10 was the social worker ongoing caseload, do
11 you see that?

12 A. Yes.

13 Q. Why is that, why did you make
14 that assumption?

15 A. The assumption is that one
16 would likely pair a family advocate with a
17 social worker around a caseload.

18 Q. Is that based on any
19 conversations you had with folks at Cuyahoga
20 County or any documents that you reviewed?

21 A. I had several conversations
22 with the leadership of the Cuyahoga child
23 welfare department about how they would think
24 about staffing and so this was consistent

1 with that.

2 Q. Is it your understanding that

3 the family advocates are specific to the

4 opioid-related cases?

5 A. The family advocates I am

6 proposing are specific to those cases.

7 Q. And the family advocates here,

8 let me back that up. The numbers here

9 reflected in lines 5 through 8, those are the

10 total caseloads for Cuyahoga County that

11 you're proposing not just opioid-related,

12 fair, because then you take an opioid-related

13 percentage of that, is that right?

14 A. I'm sorry. We've not gotten

15 down below that line.

16 Q. I'm looking at lines 5

17 through 8?

18 A. Yeah, just give me a second to

19 catch up on where we are on this table. 5

20 through 8 is just the number of cases a

21 person would have if they were being assigned

22 to different functions.

23 Q. Okay. So in line number 6, you

24 have social worker ongoing caseload being ten

1 cases. That includes non-opioid-related

2 cases, correct?

3 A. This is the assumption about

4 the appropriate caseload for serving opioid

5 cases.

6 Q. I see. So this is not a total

7 caseload for all child welfare cases. It's

8 only specific to opioid-related cases?

9 A. Yeah, I don't have a view on

10 the appropriate staffing of all cases. This

11 is my view on the appropriate staffing of

12 opioid-related cases.

13 Q. Now, you use in lines 9 and 24

14 and 28 of this chart an opioid-related

15 percentage, correct?

16 A. Yes.

17 Q. And that's based on an estimate

18 by another expert in this case, David Cutler,

19 is that correct?

20 A. That's correct.

21 Q. Did you understand that --

22 strike that. Do you have an understanding of

23 what Dr. Cutler's methodology was in

24 determining that percentage?

1 A. I reviewed it at the time that

2 I was given the relevant table and section

3 from his report.

4 Q. And did you agree with his

5 methodology?

6 A. Yes, I thought it was reliable.

7 Q. The percentage that you use for

8 your calculation for both Summit County and

9 Cuyahoga County opioid percentage based on

10 Dr. Cutler's estimates, those stay constant

11 for the entirety of your abatement plan, the

12 length of your abatement plan, correct?

13 MS. RITTER: Objection to the

14 form.

15 A. I use these particular numbers

16 to figure out a level of resources for these

17 cases, and I continue that level of cases. I

18 don't make any particular projection about

19 this number in the future.

20 BY MS. HIBBERT:

21 Q. So you're not accounting for

22 whether there would be less removals, child

23 removals from their homes related to opioids

24 as the years progress throughout your

1 abatement plan, is that fair?

2 A. I'm assuming the same level of

3 resources for these families going forward.

4 Q. And if there were less children

5 being removed from their homes due to

6 opioid-related issues, would your estimates

7 then need to be decreased?

8 A. If there were fewer families

9 that were opioid involved over time, the

10 resource needs could decline in the future.

11 Q. And if Dr. Cutler's percentages

12 for the opioid-related removals, if those

13 were actually determined to be different in

14 any way, higher or lower, would you need to

15 adjust your calculations for this entire

16 table?

17 MS. RITTER: Objection to the

18 form.

19 A. I would have to adjust any

20 portion of this table that relies on -- that

21 derives from that number.

22 BY MS. HIBBERT:

23 Q. Is there any portion of this

24 table that doesn't derive from that number?

1 MS. RITTER: Objection to the
2 form.
3 A. If you give me a moment, I will
4 figure that out.
5 (Witness reviewing document.)
6 A. The trauma counselor in line 16
7 is not a result of that number. A single FTE
8 that is provided that isn't derivative of the
9 caseload number.
10 BY MS. HIBBERT:
11 Q. Anything else?
12 (Witness reviewing document.)
13 A. I'm not seeing -- there's
14 another sub, but I'm not seeing the formula
15 here that I would need to check to be sure on
16 this spreadsheet.
17 Q. Which formula are you looking
18 for?
19 A. The row 19 recruit foster
20 families formula.
21 Q. You're not sure what the basis
22 is for line 19?
23 A. Yeah, I want to see whether
24 that was calculated straight off of 15.7 or

1 not.
2 Q. Looking at your report and
3 these appendices that you have before you
4 today, you can't say what line 19 is based
5 off of?
6 A. I need to see the cell
7 calculation to give you the answer to the
8 question you asked, which is whether the 15.7
9 number affects that number.
10 Q. I also saw on the sources and
11 notes that there wasn't a line for line 23.
12 How did you derive that calculation?
13 A. For line 23?
14 Q. Yes.
15 A. I think that comes from --
16 MS. RITTER: Objection to the
17 form.
18 A. I think that comes straight
19 from the -- either the annual report or the
20 numbers about how many foster care placements
21 there are. Actually I think -- can we go to
22 the backup table for this, so C.5 goes to --
23 BY MS. HIBBERT:
24 Q. Yeah, it's Page 71 of 133.

1 A. 71. Let me see if it's there
2 or whether --
3 MS. RITTER: 71.
4 MS. HIBBERT: I'm sorry, give
5 me --
6 BY MS. HIBBERT:
7 Q. It's Page 71 of 133, do you see
8 that?
9 A. Yes. So you can see the data
10 that come from the 2017 and 2018 statistical
11 reports of the children and family services
12 agency that we got that number from.
13 Q. I'm not trying to be dense.
14 I'm trying to understand exactly. The
15 number -- take Cuyahoga, for example, line 23
16 is 1,454. I see on here the table at Page 71
17 of 133 of Exhibit 8. That's the number at
18 the very bottom left-hand side or the average
19 number in 2018 for children placed in foster
20 and institutional care, is that right?
21 A. Yes.
22 Q. And what makes up the
23 foster/institutional care? What categories
24 that are reflected here on Page 71 make up

1 that group?
2 A. So if you go to the table above
3 and you go down to the 28 data, we just need
4 to look at the formula in that cell and we
5 can tell you which three or four of those
6 columns are in there.
7 Q. I see. So the formula for the
8 cell indicating 1,455 would tell us what
9 other cells are actually --
10 A. It's going to be two or three
11 of those. I think it's going to be two or
12 three of those columns right above that are
13 in that category.
14 Q. For line 25, you have the
15 estimated cost per placement average, and for
16 Cuyahoga County you have listed 17,492.
17 A. So we're back on table C.5?
18 Q. Yes.
19 A. Say again which line in 25.
20 Yes.
21 Q. Actually let me just confirm.
22 That number from line 25 in Table C.5, can we
23 confirm the formula that's used for that
24 calculation through the supporting table on

1 Page 71 of 133? There's a cell I see there
2 for the average cost per placement. Can we
3 determine from that cell what specific
4 numbers you're drawing from for that
5 calculation?

6 A. Just give me a second to review
7 these numbers again.

8 (Witness reviewing document.)

9 A. Yes, if we looked at the
10 formulas, we would see the numbers from right
11 above that are combined to get that number.

12 Q. Okay. Now, turning to the
13 Summit County chart, Table S5 on page 19 of
14 133, for the estimated cost per placement of
15 line 25 for the Summit County table, in the
16 sources and notes, you have referenced here
17 back to the Cuyahoga line item 25, table of
18 C.5. Is that correct?

19 A. Yes.

20 Q. And why is that?

21 A. We did not have specific data
22 on either the caseloads or the prices for
23 Summit County, so we assumed -- I assumed
24 that the costs are similar.

1 Q. Did you ask for specific data
2 regarding the caseloads and the average cost
3 per placement for children in Summit County
4 children's services?

5 A. We tried to obtain that data,
6 but I wasn't able to.

7 Q. Was that data not included in
8 the budget information that you looked at?
9 Strike that.

10 Did you look at the actual
11 budget information for Summit County child
12 welfare?

13 A. I tried to find comparable data
14 for Summit County and was unable to do so.

15 Q. Okay. And obviously if the
16 actual data pertaining to the estimated cost
17 per placement, the average cost per placement
18 for children for Summit County was less than
19 what you've indicated based on Cuyahoga's
20 numbers, all of your calculations for the
21 costs of out of home placements for Summit
22 County child welfare would have to be
23 changed, correct?

24 MS. RITTER: Objection to the

1 form.

2 A. And if it was higher, they
3 would also have to be changed.

4 BY MS. HIBBERT:

5 Q. Okay. Dr. Liebman, I'm going
6 to reserve a few more minutes for another
7 colleague. Thank you so much for your time
8 today.

9 MR. KO: Off the record for
10 just a moment.

11 THE VIDEOGRAPHER: The time is
12 5:49 p.m., and we're off the record.

13 (Whereupon, a recess was
14 taken.)

15 THE VIDEOGRAPHER: Are the time
16 is 5:50 p.m., and we're on the record.

17 EXAMINATION

18 BY MR. MOYLAN:

19 Q. Professor, I'm going to have a
20 few follow-up questions for my colleagues.
21 The first one is that your plan assumes that
22 no person with an opioid use disorder
23 recovers to the point that they no longer
24 require treatment services as laid out in

1 your tables, is that correct?

2 A. No, it's not correct.

3 Q. Okay. Can you clarify what is
4 incorrect about that statement?

5 A. As we discussed earlier, in any
6 given year different people are getting
7 treatment, so some people may get treatment
8 and their disorder may go into remission,
9 some new people may start getting treatment.
10 Some of the people formerly in remission may
11 come back, so the population of people
12 receiving treatment is changing over time.

13 Q. Okay. Mr. Morris asked you
14 some questions earlier about prescriber
15 education, and I believe you told him that it
16 could be useful to gather data on prescribing
17 rates. Do you remember testifying to that
18 effect, to see if prescribing rates were
19 changing over time?

20 A. He asked me whether, in order
21 to assess the efficacy of the abatement plan,
22 that would be a metric we could use. He
23 asked me what metric would be useful going
24 forward for that component, and I suggested

1 that metric.

2 Q. Okay. And that's because

3 that's a metric that you think would be

4 useful to have in measuring the efficacy of

5 the program?

6 A. Of the -- specifically the

7 effort to educate doctors on proper

8 prescribing practices.

9 Q. Right. Apart from measuring

10 the efficacy of the program for doctor

11 prescribing practices, are there any other

12 uses that would be -- that you would have in

13 terms of designing the plan for prescriber

14 education, or it just to measure future

15 outcomes?

16 A. Any other uses of what?

17 Q. Prescriber data, how prescriber

18 rates have been changing over time?

19 A. In thinking about how to target

20 the educational efforts, data on prescribing

21 practices, let's say there was one health

22 plan that was doing better than another or

23 whatever, would be very helpful in thinking

24 about where, you know, where our progress has

1 already been made and when there's a need for

2 more progress.

3 Q. Did you look for that data in

4 the course of your preparing your abatement

5 plan in this case?

6 A. That wasn't in the scope of

7 what I was doing here.

8 Q. Okay. But, so you didn't ask

9 if that kind of provider prescribing data is

10 available?

11 A. It wasn't relevant to what I

12 was doing.

13 Q. Are you aware the prescribing

14 rates for prescription opioids have been

15 steadily declining in the state of Ohio since

16 around 2011?

17 A. I don't know the exact year

18 that the peak occurred, but I am aware that

19 in general prescribing rates have been coming

20 down.

21 Q. But your view is that that

22 information wouldn't have been useful to have

23 in the course of preparing your abatement

24 plan?

1 MS. RITTER: Objection to the

2 form.

3 A. That's not what I believe. I

4 believe that for the purpose of what I was

5 doing, which is to figure out what capacity

6 is needed to do further work with providers

7 on proper prescribing, I was able to do what

8 I needed to do given what I knew about the

9 aggregate pattern.

10 BY MR. MOYLAN:

11 Q. Okay. Again, I think I asked

12 this, but I'm just not clear on the answer.

13 Apart from measuring future performance of

14 that provider education program and how

15 prescribing rates could change over time, is

16 there any way in which having prescribing

17 data or trends would have been relevant in

18 preparing that component of your abatement

19 plan?

20 MS. RITTER: Objection to the

21 form. Asked and answered.

22 A. Understanding the trend in

23 aggregate is useful for assessing where we

24 are and how much progress and it was -- that

1 was informative for me thinking about the

2 capacity we need. I think at the next stage

3 as one goes to implementation, having

4 disaggregated data that would allow you to

5 figure out which prescribers or which

6 practices or which health plans are still

7 using -- you know, prescribing patterns were

8 matching the ones ten years ago would be very

9 helpful in targeting the efforts most

10 effectively.

11 BY MR. MOYLAN:

12 Q. Okay. So it could have been

13 useful to have the trend of prescribing

14 practices going back ten years through 2018

15 in the course of preparing your report and

16 your abatement plan?

17 MS. RITTER: Objection to the

18 form. Misstates his testimony.

19 A. In designing this plan, as I

20 said at the beginning, I was aware that

21 prescribing levels have come down.

22 BY MR. MOYLAN:

23 Q. Okay. Were you aware that

24 there's a prescription drug monitoring

1 program in the state of Ohio called the OARRS
2 system?

3 A. Yes.

4 Q. Did you ask to see any data
5 concerning the specific trend in prescribing
6 over time?

7 A. That wasn't within the scope of
8 what I was doing.

9 Q. Okay. I think you referred
10 earlier to your engagement by the plaintiffs
11 in this case. Did you have a separate
12 engagement agreement with Mr. Ko who was here
13 earlier as your individual counsel for the
14 deposition?

15 A. I have a single engagement with
16 -- I think it's with several law firms, but
17 there's only one engagement document.

18 Q. Okay. If the court in this
19 case were to limit the plaintiff's claims
20 only to cover the costs that are associated
21 with prescription opioid misuse, in other
22 words, if illicit opioids were removed from
23 consideration in the case, is it correct that
24 the plan that you've created is unable to

1 estimate the costs that are just limited to
2 the prescription opioid misuse in these
3 counties?

4 MS. RITTER: Objection to the
5 form.

6 A. I don't address that question
7 in my report. If someone gave that -- gave
8 me that assignment, I could work on it.

9 BY MR. MOYLAN:

10 Q. In that scenario do you agree
11 that the current plan that you've created
12 would overstate the costs that are associated
13 just with prescription opioids?

14 A. I wouldn't describe it as
15 overstating. I would say that my plan abates
16 the -- is designed to abate the entire
17 crisis. A plan to abate only part of the
18 crisis would cost less.

19 Q. And you can't quantify based on
20 your report or tables what that specific
21 amount would be, the delta between the plan
22 that you have today and a plan that would
23 only be limited to prescription opioid
24 misuse, correct?

1 MS. RITTER: Objection to the
2 form. Asked and answered.

3 A. I haven't done that to date.

4 BY MR. MOYLAN:

5 Q. I think you told Mr. Morris
6 earlier in response to a number of questions
7 that you're not trying to apportion costs
8 among any entities or parties. But can you
9 rule out any parties, any defendants that may
10 not be responsible for costs of abatement?
11 Let me ask a specific hypothetical to make
12 that question a little bit more precise. If
13 a defendant stopped distributing opioids,
14 say, five years ago in 2014, or if a
15 defendant never sold a certain type of
16 opioids, would that be relevant in
17 understanding how the abatement plan should
18 apply to that defendant?

19 MS. RITTER: Objection to the
20 form. Asked and answered.

21 A. I haven't been asked to think
22 about that question. I don't have an opinion
23 on it.

24 BY MR. MOYLAN:

1 Q. Okay. So for example with
2 respect to future costs of preventing, opioid
3 use disorder, would it make any sense to
4 apply that component of a plan to a defendant
5 that's been out of the market for five years?

6 MS. RITTER: Objection to the
7 form. Asked and answered.

8 A. You're asking something that is
9 not in the scope of what I was asked to do.
10 I was asked to design a plan to abate the
11 opioid crisis. I wasn't asked to come up
12 with the legal theory about who should pay
13 for that so I don't have a VIEW on that.

14 BY MR. MOYLAN:

15 Q. Even apart from a legal theory,
16 as an economist creating an abatement plan,
17 would you agree that for a defendant that's
18 been out of the market for five years that
19 future costs to try to prevent opioid use
20 disorder in a new population of users
21 wouldn't make sense to apply a future looking
22 prevention plan to a defendant that's not in
23 the market?

24 MS. RITTER: Objection to the

1 form, asked and answered.

2 A. I have no -- I have no view on

3 that.

4 BY MR. MOYLAN:

5 Q. But your current model doesn't

6 account for that situation of a defendant

7 that's exited the market, you'd agree with

8 that?

9 MS. RITTER: Objection to the

10 form. Asked and answered.

11 A. My plan doesn't -- my report

12 does not address that issue at all.

13 BY MR. MOYLAN:

14 Q. I think you told Ms. Hibbert a

15 little bit earlier that in discussion with

16 Drs. Parran, Ryan and Lembke they told you

17 that a 15-year term was appropriate to use

18 given the nature of this -- the nature of

19 this epidemic. Is that fair?

20 A. I would say that what -- the

21 consensus of that conversation was that we

22 were going to need to sustain this new higher

23 level of resources for at least 15 years.

24 Q. Okay. And that was one

1 conversation with those three doctors?

2 A. There's one where all three

3 were on together. I've had separate

4 conversations with definitely two of them,

5 and I'm forgetting whether I had one with the

6 third.

7 Q. Okay. Do you think there are

8 notes of those conversations that are in

9 existence?

10 A. All notes that I'm aware of

11 have been provided.

12 Q. Okay. How many times -- just

13 limiting now my question to Dr. Ryan, how

14 many times have you spoken with Dr. Ryan?

15 A. I don't know exactly. I'd have

16 to go back and look at my calendar.

17 Q. Would it be one time or more

18 than one time?

19 MS. RITTER: Objection to the

20 form. Asked and answered.

21 A. It's more than one.

22 BY MR. MOYLAN:

23 Q. Okay. I'm going to mark -- I

24 guess we're up to Exhibit 16.

1 (Whereupon, Liebman Exhibit

2 Number 16 was marked for

3 identification.)

4 BY MR. MOYLAN:

5 Q. So these are a set of interview

6 notes that we received in connection with

7 your report. Do these look familiar to you?

8 A. Some of them do.

9 Q. Who prepared the notes?

10 A. It varied. Some of the

11 conversations I took my own notes although in

12 most cases, because I was running the

13 meeting, someone else was taking notes.

14 Sometimes counsel took notes. Sometimes

15 someone from Compass Lexecon took notes.

16 Q. Okay. Just directing your

17 attention to Page 7, there appear to be notes

18 of a conversation on June 22, 2018 with

19 Dr. Waller and Dr. Ryan. Do you see that?

20 A. Yes.

21 Q. They go on for several pages.

22 If you could look through those notes and

23 tell me if you find any reference to the term

24 of the abatement plan within the course of

1 those notes.

2 (Witness reviewing document.)

3 A. In my brief review I do not see

4 any mention of that here.

5 Q. Okay. And these are the only

6 notes that you have had that involve a

7 conversation with Dr. Ryan, is that correct?

8 A. Assuming this is the full set

9 of notes produced, then that's it.

10 MR. MOYLAN: Okay. That's

11 going to be all the questions I have.

12 I am going to make an objection. We

13 had asked this morning to receive a

14 copy of the revised spreadsheet that

15 Dr. Liebman mentioned earlier, which

16 apparently has been available for

17 several days. We didn't receive a

18 copy.

19 MS. RITTER: It wasn't several

20 days. We said one or two days. We

21 don't have it here with us, I don't

22 have it with me, he doesn't have it

23 with me, we didn't deny the request,

24 we said we heard your request. Also

1 he gave the information that allowed
 2 the questioning about the differences
 3 in the flip of the numbers. So you're
 4 welcome to ask him questions about it,
 5 but we haven't denied --
 6 MR. MOYLAN: I'm not sure --
 7 MS. RITTER: You can object.
 8 We haven't denied that --
 9 MR. MOYLAN: Yeah, that's all
 10 I'm doing.
 11 MS. RITTER: Okay.
 12 MR. MOYLAN: I'm objecting that
 13 we've requested it, we haven't
 14 received it, and I don't think that we
 15 were able to ask all the questions
 16 that we would have wanted to do
 17 without the revised version. So with
 18 that unless there is anything else, I
 19 think we can go off the record.
 20 MS. RITTER: We have a couple
 21 questions.
 22 BY MS. RITTER:
 23 Q. Just briefly, Dr. Liebman.
 24 When Ms. Hibbert was questioning you about

1 Exhibit 8, I think she maybe inadvertently
 2 said that --
 3 PHONE PARTICIPANT: I'm sorry.
 4 It's almost impossible to hear you.
 5 Can you please speak up.
 6 MS. RITTER: I have a mic.
 7 I'll try to talk louder.
 8 BY MS. RITTER:
 9 Q. When Ms. Hibbert was
 10 questioning you earlier about Table C.5 in
 11 Exhibit 8, I think she overlooked a reference
 12 for line 23, so I'd like you to look at page
 13 18 of 133 and then the page preceding which
 14 was 17 which is what it relates to, and tell
 15 me if you do see a reference there for line
 16 23 for the children placed in foster
 17 institutional care average number.
 18 MR. CARTER: Object to the
 19 form.
 20 A. Sorry, line 23?
 21 BY MS. RITTER:
 22 Q. Yes.
 23 A. I'm not seeing any line 23. Am
 24 I looking at the right thing?

1 Q. When you -- Dr. Liebman, if you
 2 look at Page 18 of 133, and if you go down,
 3 the third line where it says in brackets 1 to
 4 4, 23, 27 --
 5 A. I see, 23 is up there. Oh,
 6 good, fine. I was looking for 23 between 22
 7 and 24, but it was up there. I see. That
 8 does, in fact, come from the statistical
 9 report of the county, yes.
 10 Q. Looking at Page 18 of 133 then,
 11 what is the reference for line 23 on the
 12 preceding page?
 13 A. The children placed in foster
 14 care --
 15 Q. Yes.
 16 A. -- comes from the statistical
 17 report of the Cuyahoga County Division of
 18 Children and Family Services for January to
 19 September, 2018.
 20 Q. That's all the questions I have
 21 about that document. Then shifting to your
 22 report which is marked as Exhibit 6, and
 23 specifically in the Appendix D, Page 2 of 55,
 24 which is Table SO, looking on that page, what

1 does the bracket number 1 refer to?
 2 A. It's the calculation in the
 3 Pitt et al. paper -- it's the two numbers
 4 from the Pitt et al. paper that I combined in
 5 order to get the overall opioid use disorder
 6 rate in line 1.
 7 Q. And turning now to Exhibit 11,
 8 is this the article you just referenced?
 9 A. Yes.
 10 Q. And turning to the supplement
 11 of that article, and specifically to page
 12 S.4, if you can go down to the -- that's a
 13 section S.1.3, if people are looking for it,
 14 called "Initial Compartment Sizes" on page
 15 S.4 of the supplement to that article --
 16 A. Yes.
 17 Q. -- which is the second part of
 18 that exhibit. Can you go down to the last
 19 paragraph which begins "NSDUH" and read that
 20 section down to the words "overdose death."
 21 A. "NSDUH and the National
 22 Epidemiological Survey of Alcohol and Related
 23 Conditions reports rates of prescription
 24 opioid dependence and use trends" --

1 Q. Oh, no. The next paragraph,
 2 sorry, "NSDUH and the National Epidemiologic
 3 Survey on Alcohol and Related" --
 4 A. Yeah. I think I was doing
 5 that.
 6 Q. With the NESARC language?
 7 A. I didn't read the
 8 parenthetical. Do I need to read that?
 9 Q. Okay. That's all right. Okay.
 10 Go ahead. Okay. Okay.
 11 A. I just went straight to use --
 12 I apologize.
 13 Q. Okay. Go ahead.
 14 A. "However, prevalence of severe
 15 opioid use disorder is not reported.
 16 Additionally these surveys suffer from
 17 underreporting in key populations of
 18 relevance to the epidemic. We, therefore,
 19 estimated SOUD prevalence based on reported
 20 prescription opioid overdose deaths adjusted
 21 for underreporting and the estimated
 22 likelihood of overdose death. We performed
 23 the adjustment for underreporting by assuming
 24 that the actual number of prescription

1 opioid-related deaths was 24 percent greater
 2 than the total opioid deaths, minus deaths
 3 from illicit opioids reported by the Centers
 4 for Disease Control and prevention."
 5 Q. What, if anything -- what, if
 6 any, clarification does that language provide
 7 regarding the source of their calculation in
 8 the Pitt and Brandow study of the initial
 9 compartment size?
 10 MR. MORRIS: Objection to form.
 11 A. Well, it describes how Pitt et
 12 al. -- exactly how they did what I described
 13 earlier which is they adjusted the NSDUH
 14 numbers for the underreporting and for the
 15 missing populations.
 16 MS. RITTER: That's all I have.
 17 MR. CARTER: I have a follow-up
 18 question on the article.
 19 MS. RITTER: What did you say?
 20 MR. CARTER: I have a follow-up
 21 question on what you just asked.
 22 MS. RITTER: Exhibit 11.
 23 BY MR. CARTER:
 24 Q. Professor Liebman, my name is

1 Ed Carter. We didn't have a chance to meet
 2 earlier.
 3 What's your understanding as
 4 the reason or reasons why there is
 5 underreporting?
 6 MS. RITTER: Object to the
 7 form.
 8 BY MR. CARTER:
 9 Q. Let me ask it this way. Do you
 10 have any understanding or expertise as to why
 11 there may be underreporting referenced in
 12 that article?
 13 A. Yes. There -- I think as we
 14 discussed at the very beginning today, there
 15 are several reasons why we think the
 16 estimates -- why there's a pretty strong
 17 consensus that the estimates that come from
 18 the National Survey of Drug Use and Health
 19 are likely to be lower than the actual
 20 number -- lower than the actual percentage of
 21 opioid use disorder. Part of it is that the
 22 survey doesn't cover several populations that
 23 we think are higher than average in opioid
 24 use, including the homeless, those who are

1 incarcerated and other institutional
 2 populations and also because people
 3 underreport to surveys and in addition when
 4 people have used other methodologies like the
 5 recent Massachusetts study that uses claims
 6 data, they have found much higher rates of
 7 opioid use disorder.
 8 Q. And with respect to reporting
 9 of opioid use disorder, have you seen
 10 literature that because of some of those same
 11 factors people are more likely to cite
 12 prescription opioids than their illicit drug
 13 use and that illicit drug use is
 14 underreported as an initiating drug?
 15 A. I'm not aware of that research.
 16 MR. CARTER: Okay. No further
 17 questions on that. I do join in the
 18 other objections in terms of the time
 19 limitations. I had a number of
 20 questions for the professor on behalf
 21 of my client that due to the time
 22 restrictions I have not had the
 23 opportunity to ask, so I would lodge
 24 an objection to that.

1 THE VIDEOGRAPHER: The time is
 2 6:14 p.m. This deposition has
 3 concluded, and we are off the record.
 4 (Whereupon, the deposition was
 5 concluded.)
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1 COMMONWEALTH OF MASSACHUSETTS)
 2 SUFFOLK, SS.)
 3 I, MAUREEN O'CONNOR POLLARD, RMR,
 4 CLR, and Notary Public in and for the
 5 Commonwealth of Massachusetts, do certify
 6 that on the 3rd day of May, 2019, at 9:03
 7 o'clock, the person above-named was duly
 8 sworn to testify to the truth of their
 9 knowledge, and examined, and such examination
 10 reduced to typewriting under my direction,
 11 and is a true record of the testimony given
 12 by the witness. I further certify that I am
 13 neither attorney, related or employed by any
 14 of the parties to this action, and that I am
 15 not a relative or employee of any attorney
 16 employed by the parties hereto, or
 17 financially interested in the action.
 18 In witness whereof, I have
 19 hereunto set my hand this 5th day of May,
 20 2019
 21 Maureen O Pollard
 22 MAUREEN O'CONNOR POLLARD, NOTARY PUBLIC
 23 Realtime Systems Administrator
 24 CSR #149108

1 INSTRUCTIONS TO WITNESS
 2
 3 Please read your deposition over
 4 carefully and make any necessary corrections.
 5 You should state the reason in the
 6 appropriate space on the errata sheet for any
 7 corrections that are made.
 8 After doing so, please sign the errata
 9 sheet and date it. It will be attached to
 10 your deposition.
 11 It is imperative that you return the
 12 original errata sheet to the deposing
 13 attorney within thirty (30) days of receipt
 14 of the deposition transcript by you. If you
 15 fail to do so, the deposition transcript may
 16 be deemed to be accurate and may be used in
 17 court.
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1 - - - - -
 2 E R R A T A
 3 - - - - -
 4 PAGE LINE CHANGE
 5 REASON: _____
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1	
2	ACKNOWLEDGMENT OF DEPONENT
3	
4	I, _____, do
5	Hereby certify that I have read the foregoing
6	pages, and that the same is a correct
7	transcription of the answers given by me to
8	the questions therein propounded, except for
9	the corrections or changes in form or
10	substance, if any, noted in the attached
11	Errata Sheet.
12	
13	
14	
15	
16	
17	Subscribed and sworn
18	To before me this
19	_____ day of _____, 20____.
20	
21	My commission expires: _____
22	
23	
24	

Jeffrey B. Liebman, Ph.D. Date

Notary Public

1			LAWYER'S NOTES
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